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AUDIOVISUAL INSTRUCTION

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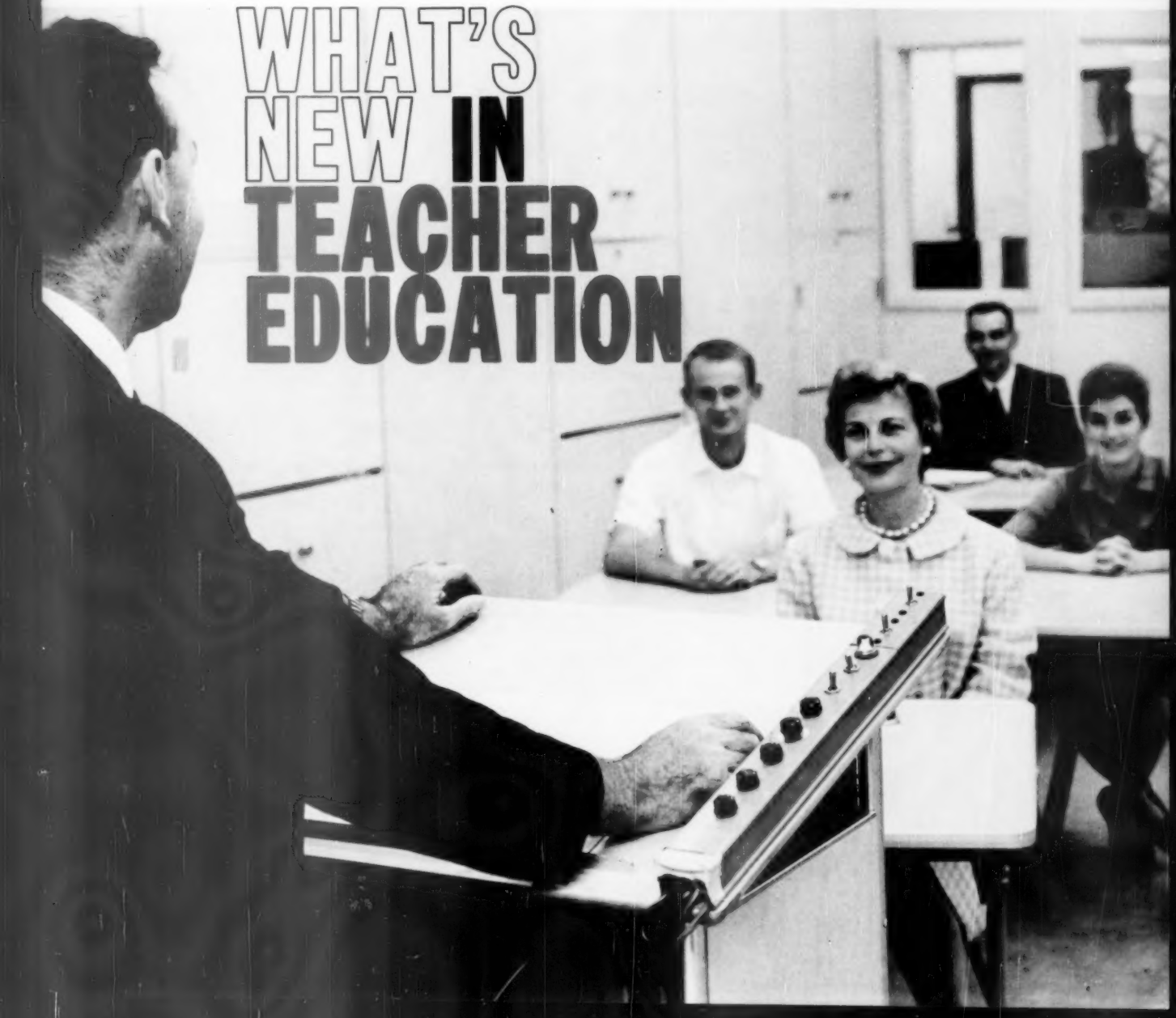

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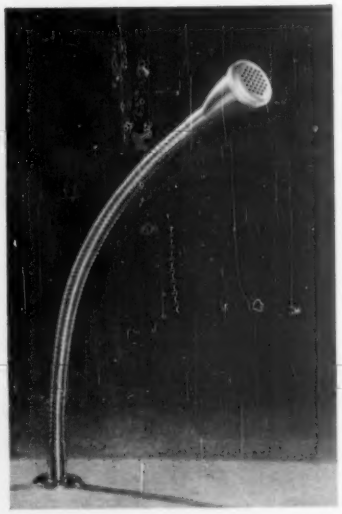

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VOL. 6 NO. 2 *FEBRUARY 1961*

AUDIOVISUAL INSTRUCTION

Contents

46 Two Rooms With a View
Paul V. Robinson

50 Inservice Techniques That Work
Marie McMahan

54 The AV/TV Course
Walter A. Wittich

58 Demonstration Lessons Via Kinescope
Robert R. Nardelli

60 Audiovisual Internships
Romaine H. Ringis

62 Audiovisual in Focus at Bemidji
W. R. Fulton

66 It's All Top Billing at Miami
Convention Report

EDITORIAL COMMENT

76 A Time of Opportunity
Anna L. Hyer

DEPARTMENTS

43 Clips

45 Professional Placement

68 Looking at New Literature

74 Feedback

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AUDIO-VISUAL CONVENTIONAL SKYLIGHT

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The Cover: "In front of each room on the teacher's podium rests a philosophy of instruction . . ." writes Paul Robinson on page 47. What Dr. Robinson is talking about is the automated panel you see on the cover--an instrument which gives the teacher immediate control over the teaching situation at all times. The photo is by Francis Withopf of the University of Southern California who also made those appearing with Dr. Robinson's article.

When is Pre-Registration? Not when you fail to enclose your check, Registration Chairman Otis McBride reminds DAVI members. Deadline is March 1, but you can cancel (and get your money back) up to April 20. The Deauville will place all overflow registration next door at the Sherry Frontenac and Monte Carlo, both with the same bargain prices on food, and room rates even lower ($8.50 single and $10 double). No registration fee for wives, banquet and buffet tickets available to them at regular price. Modified American Plan recommended for all.

"Audiovisual Ideas," the handbook for teachers described by Marie McMahan on page 52 is available from the Battle Creek Public Schools for $2. Address orders to Ben Ahlschwede, Assistant Superintendent.

Auto Accident Slows but Doesn't Stop Sanner: Word in late December from Richard Sanner at the University of Hawaii brings news of an auto accident two months earlier. Despite a severe neck injury, Mr. Sanner stayed on the job, conducting an audiovisual fair during Education Week and launching a newsletter in December. Sanner is membership chairman for Hawaii.

AVI and AVCR Want In! The DAVI Board has been plugging for a long time to get both AVI and AVCR listed in the Education Index. Dr. Hyer now learns that both are being considered for the voting list which is circulated to subscribers giving them the final say as to which publications are listed. This means that librarians in your school system and on your campus may be in a position to decide the fate of these two publications. Please don't fail to alert them.

Team Teaching Bibliography free from ASCD if you send 8-cent stamped, self-addressed envelope. Produced jointly by ASCD and the NEA Research Division, the 11-page bulletin was prepared by Robert H. Anderson and others at Harvard University. (Write to ASCD at 1201 16th Street N.W., Washington 6, D.C.)

Meet DAVI's "Men of the Year," your state membership chairmen working towards a double goal--6000 DAVI members by Convention time, 6200 members by June 1. Here they are: Alaska, Jean Kriebs, University of Alaska, College; Arkansas, Richard Keyton, Gurdon Public Schools; California, Myer L. Crumb, San Luis Obispo County Schools; Colorado, William D. Cox, Adams City; Connecticut, George Puglisi, Stratford; Florida, Charles E. Foster, Lee County Board of Education (Fort Myers); Idaho, C. G. Cooper, Idaho State College, Pocatello; Illinois, James Boula, State Department of Public Instruction, Springfield; Indiana, Wilford Jarboe, Evansville Public Schools; Iowa, Robert Paulson, Iowa Teachers College, Cedar Falls; Kansas, Theodore L. Kowalski, Kansas State College, Pittsburg; Hawaii, Richard Sanner, University of Hawaii, Honolulu; Louisiana, A. B. Davis, State Department of Education, Baton Rouge; Maine, Villa Quinn, State Department of Education, Augusta; Massachusetts, Margaret Jackson, New Bedford Public Schools; Michigan, Lew Saks, East Detroit Public Schools; Minnesota, Robert Bauman, Macalester College, St. Paul; Missouri, Luke Boone, Northwest Missouri State College, Maryville; Montana, J. Torrence Harvey, Kalispell Public Schools; Nebraska, Ineze Hannan, Lincoln Public Schools; New Hampshire, J. Blair Watson, Dartmouth College, Hanover; New Jersey, Margaret Joiner, Lincoln School, New Brunswick; New York, Anthony Kauth, Elmont Road School, Elmont; North Carolina, Kenneth McIntyre, University of North Carolina, Chapel Hill; North Dakota, Irving Spigle, University of North Dakota, Grand Forks; Ohio, Jerry Saunders, State Department of Education, Columbus; Oklahoma, Guy Pritchard, Oklahoma State University, Stillwater; Oregon, Milton Grassell, Oregon System of Higher Education, Corvallis; Pennsylvania, Arthur MacDonald, Abington; Rhode Island, Everett V. Maxwell, State Department of Education, Providence; South Dakota, Leonard Y. Tripp, Sioux Falls College, Sioux Falls; Tennessee, Bealer Smotherman, Middle Tennessee State College, Murfreesboro; Texas, Nettie Shaw, Carthage Public Schools; Utah, LeRoy Lindeman, Brigham Young University, Provo; Vermont, Robert Jackman, Montpelier Public Schools; Washington, Charles Wright, Central Washington College, Ellensburg; Wisconsin, Robert Krueger, River Falls State College, River Falls.

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POSITIONS

Director New-Media Laboratory. Prefer younger man; must have doctorate. At least 5 yrs experience in planning, developing, conducting, and directing educational research projects (some but preferably not all in new media); some administration desirable; prefer person who can conceptualize researchable ideas rather than being simply methodologically adept; must be committed to rigorous research ideal. Duties include directing new-media lab serving as research arm for university telecommunications, and expediting and facilitating research; $10,000-$12,000; open July 1, Midwest. Box No. P-11.

College AV Director. Man or woman, to 45 yrs; masters with AV major. Two yrs experience as public school visual aids director or college coordinator and instructor; working familiarity with regular machines, CCTV, graphic arts preparation, administering AV programs. Will be expected to administer AV service; teach basic AV course; plan and teach elective courses; provide technical advice to college authorities on TV installation and implementation; advise on AV budgetary problems; exercise leadership. $6000-$7000, open September 61, eastern US. Box No. P-12.

Assistant Director (permanent 12-month university administrative position). Man or woman; master's degree. Three yrs teaching and AV experience; writing ability; knowledge of film medium; above all, ability to work well with people. Duties include personnel administration, consultation, evaluating and writing descriptions of films, preparing publications, budget planning, other administrative duties. Open July 1, Eastern university with generous tuition and employment benefits. Box No. P-13.

Head of Graphics Section (state university). Man; BS in commercial art with training in education; teaching experience essential; desire knowledge of still and motion picture photography possibilities and limitations; require knowledge of printing, layout, and production processes; must have imagination, creativity, interest, and organizing skills to supervise staff of full-time artists and student help; will consult with faculty regarding utilization of graphics work. $5000-$6000 depending on experience and training; open now, Southwest. Box No. P-14.

APPLICANTS

Administrative, Supervisory, Teaching. Woman specialized in elementary education, art through high school, and AV through college level. Master's degree with dissertation remaining to complete doctorate. Wants to teach course in "audiovisual communication tools for education via a laboratory designed around the present and future needs of teaching." Ten yrs public school teaching in metropolitan area; 5½ yrs teaching AV and supervising AV lab at university level; publications. 51, single, one dependent; $9000-$10,000; available now, metropolitan Detroit or 50-mile radius. Box No. A-17.

College AV Instructor or AV Director (district, county, or public library). Man specialized in educational administration with degree in science and math. Masters in educational administration with advanced work in AV communication. Teaching experience includes 2 yrs high school math and science, 2 yrs elementary, 5 yrs teaching and AV work at college level; also courses and experience in photography; publications. 38, married, 5 children; salary open, available fall 1961, prefer Mountain West or West but will consider other. Box No. A-18.

Coordinator of Production or ETV, instructor in these areas or AV. Man specialized in graphics, film production, CCTV production. Masters with course work towards doctorate. Experienced in elementary teaching, film production, as instructor of graphics production and AV, CCTV coordinator. 34, married, 2 children; $7000, available late June; will go anywhere but would like to hear from central or Southwest region. Box No. A-19.

AV Director or College AV Position. Man specialized in elementary education, educational administration and supervision; MA in educational administration. Seven yrs teaching (elementary and junior high); 2 yrs supervising principal; 4 yrs building coordinator. Visual communications certificate; has organized communication materials center; knows teaching machines and AV utilization. 36, married, 3 children; $9000, available July, anywhere US. Box No. A-20.

Technology Applied to Teacher Education

TWO ROOMS WITH A VIEW

PAUL V. ROBINSON

TO DATE THE IMPACT OF TECHNOLOGY has had little effect upon curriculum, classroom, or teachers. Misunderstanding and resistance are predictable when the new or unknown is introduced, and it is often said "we teach in the way by which we have been taught." Until it can be demonstrated to teachers and administrators how technology benefits the curriculum, the learner, and the teaching process, we will be forced to use the future tense in discussions regarding it.

The relationship between theory and practice is one of constant readjustment of means and ends, the adjustment resulting from experience with a problem. Before technology can be expected to exercise an impact upon educational practices, it must first create an effect upon those who are to participate in its day-to-day use. Experimentation must occur among student-teachers, teachers, technical engineers, and methods specialists concerned with new approaches to curriculum.

Were the classrooms of the future to open tomorrow, what would they be like? What would we do in them? How would they be organized? Would materials be ready for use in them? Who would know how to use these classrooms? Chances are that teachers would continue to teach in much the same way they taught yesterday.

With some of these notions in mind, we at the University of Southern California set about to construct a program and a facility in which the problems and potentials of some of the recent innovations of our technological age could be studied. What more logical place than the area of teacher education to begin introduction of the recent tools of teaching?

Dr. Robinson is assistant professor of education at the University of Southern California.

The Physical Plant

THE CONCEPT THAT ANY CLASSROOM will serve as an instructional facility cannot be supported in a technological age. Facility and curriculum are co-determinants of the form of instruction which will occur. Technology goes beyond equipment set into a room; the room itself must be designed for the kind of instruction which will occur within its walls. We do not know, for instance, whether these walls should be four in number, or what the shape of the room should be.

We at the University of Southern California did not know the specific requirements for our facility, but we knew the kind of instruction anticipated and some of the experimental areas with which we hoped to deal. Certain requirements were set up as necessary to Phase I of the development, namely: (1) teacher-control of basic room features, (2) lecture and laboratory activity to occur in the facility, (3) CCTV to be used, (4) individual and small-group activity centers to be planned, (5) one or more live projectors to be operated one at a time or simultaneously, (6) facilities for varied types of sound materials, (7) mobile auxiliary equipment, (8) modular and portable furnishings, and (9) storage for equipment and materials. In addition to these known requirements the facility had to be designed for incorporation of "not-yet-available installations." This was to be Phase I of a progressive development in which investigation and experience with educational technology could occur naturally and as fluidly as possible.

The resulting facility consists of two classrooms equipped identically and located side by side. These are divided by a work-center storage wall. At the rear, opening into both classrooms, is a control room which houses much of the technical equipment and serves as a

"Camera Two . . . get me a close-up . . . Focus on camera two . . . Ready on camera two . . . Cut to camera two." Three hours earlier this student director was instructing a fourth-grade class. Now she is helping to put a televised demonstration on the air—one of a series of experiences planned at the University of Southern California to give student teachers skills in the new tools and methods of instruction.

point-of-origin for projected and recorded materials. Storage is handled by two separate rooms (also to the rear) one for materials, the other for equipment.

CCTV: The heart of much recent technological investigation in education has been television utilization—the concept being one of mass viewing under varying classroom conditions. Our concept is that of assisting the teacher to create quality and quantity in the presentation phase of instruction, utilizing television as a tool to do those things which television can best do—to supplement instruction by presentations of meaningful materials. Our aim is to emphasize improvement of the quality and quantity within a presentation rather than to reach large groups with more conventional coverage. The system is certainly not limited to this concept, but in Phase I it is one with which we will deal liberally.

Specifically, the CCTV utilizes two floor cameras with an appropriate variety of lenses. A program can originate from either classroom or it can be restricted to one classroom with other instruction occurring in the second. A film chain equipped for projection of 16mm film and 2x2 slides is housed within the control room. Rear projection is used for filmstrip pick-up by one of the floor cameras; titlecards and large graphics are handled by direct pick-up.

Awaiting installation is the Corrigan-Luxton "Teletest" unit which enables the lecturer to receive feedback other than that provided by live contact or intercom questions. The Teletest is equipped with a three-choice answer selector and provides the student with immediate knowledge of results and a permanent record for the instructor. The lecturer may discover how his message was interpreted at selected points in his presentation by one of several types of multiple-response questions.

Control Facilities: The functions of a control room have been split between a lecturer's control panel and the main console panel. Most of the equipment is housed in the control room. The TV console controls audio and video in the television system as well as the camera chain.

An intercommunication system between the TV director in the control room and the camera men allows selectivity in picture choice on the broadcast picture. The communication between the lecturer and the control room is directly off the system's audio monitor. Although all video and audio signals pass through the control room, the teacher has remote control over part of the system from the lecturer's control panel.

A stereo record player and a tape recorder are also located in the control room. Two special-purpose projection stands are housed there to accommodate one or several projectors when live projection is required in either or both of the classrooms.

In the front of each room on the teacher's podium rests a philosophy of instruction in the form of an automated control panel. Based on the premise that the instructor should at all times be in control of the teaching situation, the teacher can select a desired light level for an activity, raise and lower the projection screen, receive and answer questions originating in the adjoining classroom, introduce CCTV or broadcast TV at will, adjust TV contrast and brightness ranges, adjust the sound level and balance stereo sound or general audio in the room. This can be done without moving from the podium. (In Phase II, plans call for automated operation of pre-set projection and audio equipment located in the control room. Currently these activities are carried out by direct communication with a person in the control room.) Central to the system lies the concept of pre-planned presentation techniques, utilizing varied audio and visual materials.

Activity Centers: The dividing walls between classrooms were planned for storage and to provide self-contained activity centers. These are currently stocked with graphic materials for individual use when classes are not in session. During class periods they serve as supply stations for materials in use. They may also serve as activity centers when equipment operation forms the instructional task. Service carts are also brought into play during peak class activity.

Other Provisions: Besides the automated features, other provisions facilitate the presentation of more ordinary lecture materials. To the rear of the teacher is a bank of presentation boards and a chalk board. The former are floor-to-ceiling tack boards which permit concealment of materials until the point of impact is desired by the teacher. When these panels are rolled to each side they reveal a large area for use with overhead projection materials. The classroom contains approximately 120 square feet of bulletin board; a demonstration bench is stored behind one of the sound baffles. Furniture is light and modular to enable experimentation with groupings and to provide flexibility in room arrangement.

These are the basic features of the physical plant. Adaptability and versatility were desirable for study of many of the curricular problems. The installation is not yet a year old so that much of the potential remains untapped. The use to which it has been subjected has, for the most part, been exploratory—discovering just what can be done in an installation of this sort. The exploration has been carried out with courses in teacher education. Six sections of the basic audiovisual course for teachers have gone through a revamped program in which the television facility played a major part. During the current year, 12 additional sections will be used for restructuring of the course.

(See the next page)

Technology in education is effective only if used, and training teachers is a basic step. Here Dr. Finn explains principles of a late model teaching machine.

Knowing how to make some materials is essential part of new instructional concept. Shown above is "self-contained activity center" built into dividing wall.

"Knowledge of media" means familiarity with new uses of existing media as well as accepting innovation.

The Instructional Concept

THE FLICKERING LIGHT and the television screen have shed illumination on some of the critical problems of educational technology, though directions still are not clearly visible. Redeployment of student populations (class size) would appear to be one of the most challenging administrative problems, structuring of content one of the most critical curricular problems, and student learning one of the most vital social concerns. The problems are not simple ones to be solved by an increase in film use, introduction of more television sets, or mass acceptance of auto-instructional devices. They call for a re-evaluation of the teaching process as well as the educational structure. Technological change in education requires more than additional gadgets, it *involves innovation in the presentation of content, in analysis of teacher functions, and in the assessment of student-teacher relationships.*

The changes are broader than internal approaches to methods used in a classroom; these cut across curricula, broadcast channels, and industrial and commercial development. The implications for education, and therefore for the training of teachers, can be characterized in part, as:

- Philosophic training: broad questions of aim and objective, methods of group consensus, and social motivation.
- Administration of methods: modes of presentation, classroom organization, and school-day organization.
- Interaction techniques: teacher role in group and individual instruction.
- Student-use of knowledge: concept formation, creative activity, problem-solving activity, and social applications.
- Media knowledge: new uses of existing media, incorporation of new media, and development of new media.
- Selection-preparation of materials: gaining availability of existing materials and making of new materials.
- Inservice-training: keeping up to date in content, methods, and media.
- Subject specialists: utilization of available human resources, and personal growth in subject fields.

Technology in education can create its effect only through use. Training of teachers and school administrators is one of the first steps to establish attitudes and to achieve basic understanding of the technological and communication potential in new approaches to the problems of education.

Equipped with a new installation at USC, we applied technology by adapting one existing course and by adding new courses to our established program.

Adapting the Basic AV Course

Credentials in California require teachers to demonstrate skills and abilities in the use of audiovisual methods. The University of Southern California provides one of the most extensive offerings in the state. The course, designed to provide basic audiovisual experience, consists of 15 lecture hours and 30 hours of laboratory activity. Experimentation in this curricu-

lum has been that of integrating the potentialities of the facility into existing course content.

In the past, lectures have used a variety of live AV methods to present course content. To improve coverage, content presentations are currently being reviewed and adapted to include TV techniques, large group graphic presentation, and live simultaneous projection of materials. Allied to this main purpose is that of acquainting students with educational television.

During lecture periods a class of 40 is divided into two groups, one staying in the classroom where the lecture originates, the other viewing the presentation by way of TV. On alternate weeks the groups shift so that during the lecture sessions one-half of the content will have been viewed over television, one-half live. Some films are shown over the film chain, others by simultaneous live projection. Students become accustomed to procedures in operation of the televised lectures and respond well to questions normally encountered in lecture-type activity. The intercom relays questions and answers from one classroom to the other. Students from both classrooms are selected for role-playing, demonstrations, etc. which become a part of the telecast material and heighten student interest.

Cameras and the studio atmosphere become a familiar sight to all students in the program. Cameramen operating the floor cameras are students interested in gaining additional experiences in AV and not necessarily AV majors. Currently we are engaged in the production of materials to be used either as chart material or through one of several projection techniques. The main aim is to adapt existing content to varied techniques which can serve to increase the effectiveness of the lecture presentation.

The laboratory coverage is extensive rather than intensive, dealing with equipment operation, utilization procedures, and production of materials such as charts, bulletin boards, simple projected materials, etc. Instructors demonstrate other methods and media throughout the course. Twice a semester each student has a major television responsibility. One occurs early in the term and covers the operation of equipment; the other deals with utilization procedures and takes the form of a five-minute demonstration in which the student uses materials he has made over CCTV.

New Coursework in Technology

The ongoing graduate program in audiovisual education provides advanced work leading to the master's and doctorate degrees. To equip teachers with necessary skills and recent methods is a recurring problem: technological innovation has highlighted curricular approaches which are in need of educational verification. From the limited amount of experience that has been accumulated, three areas have received sufficient recognition to deserve educational application. These are teaching-learning machines, large-group instruction, and instructional systems. Beginning in September, 1960, courses were set up at our University to enable teachers to deal with these problems on an active basis. It is too early to provide ready answers, but a brief description of course objectives and method of attacking these problems may serve some useful purpose.

Programming for large group instruction: Redeployment of students into large classes obscures the communication processes ordinarily observable in small groups. Unanswered questions assume equal importance with those which the teacher has had time to answer. Equipment problems and presentation techniques become critical issues. It is the objective of this course to deal with communication problems which result from large-group organization. Student activity is broken up into two projects, one in which individuals work together as a team and the other in which each student carries out independent work in his chosen field. Materials are produced and a mock run-through carried out. Solutions are then subjected to group evaluation and criticism.

To date more questions have been raised than solutions derived. These questions relate to such problems as (1) equipping the room, (2) room layout, (3) relative length of "presentation" and "interaction" phases, (4) methods of handling group interaction, (5) pacing the presentation, (6) use of cross and multiple media, (7) scope and administration of production required to conduct such a class, (8) standardization of formats, (9) measurement of student learning, and (10) organization of teacher teams.

Programming individual teaching-learning machines: The department has already purchased several types of teaching machines. As others become available these will take their place with existing AV equipment in regular instruction. For the most part, classroom teachers are not yet familiar with the machines nor have they considered the implications of programmed material. The task of translating content into one of several formats constitutes the major course objective. Students working under the direction of an experienced programmer is the method of instruction. Some of the concepts covered in the course are: approaches to programming, suitable materials, methods used to present content, difficulty of items and forms of response, length of programs, efficiency of programmed material, and evaluation of student learning.

Designing of instructional systems: Instructional systems involve the utilization of individual and group methods within a single curriculum or integrated curricula. We are experimenting with application of a partial system in the organization of the basic methods course to discover some of the problems inherent in this approach. A doctoral study is in progress and deals with some of the administrative, production, and communication problems within a system. Formalization of the course will be delayed until the Fall of 1961 when more experience with the components will have been achieved. The objective of the course is to develop instructional programs which integrate materials and methods of communication with content coverage of entire curricula. The proposed activity will be the development of systems which account for such factors as (1) school-day organization, (2) class-size related to instructional tasks, (3) utilization of staff resources, (4) building and classroom organization, (5) selection and production of the materials of instruction, and (6) administrative problems.

INSERVICE TECHNIQUES THAT

How to dispense maximum audiovisual know-how with minimum schedule disruption.

MARIE McMAHAN

"Are we going to have an audiovisual workshop this fall?" "May I attend the audiovisual workshop again this year? There are so many things I want to make for my classroom."

THESE ARE COMMENTS that warm an audiovisual consultant's heart, especially one who feels that effective inservice education in audiovisual techniques is an essential part of a successful program. In the Battle Creek public schools, inservice activities begin with specific needs as expressed by teachers, principals, consultants, or the assistant superintendent. They are of many kinds, but tie into already scheduled meetings in order not to put too great a strain on busy teachers' time. Here is a summary of last year's meetings and, following that, a brief discussion of the activities entailed:

37 workshop sessions
8 meetings with building audiovisual coordinators
3 open house sessions for new teachers
7 grade level meetings
5 meetings with junior high departmental groups
13 building staff meetings
5 sessions with PTA groups
Individual conferences with about 200 teachers per month
A number of preview sessions

Coordinators' Meetings

The third Monday of each month, after school, is reserved for meetings of building coordinators. Our meetings last for about an hour and are used for a variety of activities, among them:

- Planning ways of attacking city-wide audiovisual problems; organizing open house sessions for our new teachers; organizing previews; planning exhibits and demonstrations (for a Michigan Audio-Visual Association Conference, a Michigan Education Association Audio-Visual Section, etc.)
- Becoming acquainted with new materials and equipment available in the department (picture laminating press, picture copying equipment, etc.)
- Practicing the use of new equipment.
- Learning simple maintenance of equipment available in buildings (changing bulbs, putting in new needles, etc.)
- Producing simple materials that teachers have requested from the department.

Our building coordinators, in turn, relate their experiences to their staffs so that they, too, can share in new ideas and techniques.

Building Staff Meetings

Building staff meetings are held on Mondays after school. Frequently a principal or coordinator who has been delegated to make the request invites me to participate. These meetings take place either in the building or in the central department and usually fall into one of these categories:

Sharing Meetings. I was invited on one occasion to conduct a staff meeting on audiovisual materials for teaching arithmetic. The principal made the request; a committee of teachers, the principal, and I planned the program. We asked each teacher to contribute several audiovisual devices to an arithmetic exhibit which would be organized sequentially by grades. At the meeting, each teacher discussed briefly how she used her devices for building arithmetic understanding at her grade level. I was able to make a contribution as I had

Many readers will recall Miss McMahan's demonstrations at past conventions. She is audiovisual consultant for the Battle Creek (Michigan) public schools and chairman of the city systems section for this year's Convention.

with me other audiovisual aids appropriate for that specific grade level. Teachers indicated that the meeting was worthwhile, both because it gave them new ideas and helped them understand the arithmetic sequence in the elementary grades.

Demonstrations. On another occasion, the building coordinator requested a staff meeting after a discussion with the principal and teachers. This session, dealing with effective use of bulletin boards, consisted of two parts. First, I demonstrated some basic principles of good bulletin boards, showing slides to illustrate the important points. Then, because we wanted this to be a "doing" as well as "talking" meeting, teachers were given an opportunity to sketch bulletin boards for their rooms, using the principles that had been discussed. This was an interesting session and convinced me that the theory "we learn by doing" should be applied more frequently by educators.

Workshops—of many kinds—are mainstay of Battle Creek inservice program. Some are held informally with materials made available from the AV department; some, based on teachers' requests are regularly scheduled sessions for credit. The author also conducts section at Clear Lake summer workshop.

Production Meetings. A third staff meeting was primarily of the production type. It dealt with transparencies and was requested because the building had acquired an overhead projector for which materials were needed. This meeting was carefully planned. The principal polled his staff to determine which units they felt might be most effectively taught with transparencies. Thereupon I collected the necessary materials, and we engaged in a production session in the audiovisual department.

Grade Level Meetings

Elementary grade level meetings are held in our system after school on the second Monday of each month. Last year six of the general and special area consultants met with the six grade-level groups, each working with a different group each month. I usually use one of two approaches with these groups. I either present an overview of new materials (both commercially and locally produced) for units taught at the grade level in question; or, I choose a specific unit taught at that grade level, select films, filmstrips, maps, objects, and other audiovisual materials, and demonstrate at what stage in the unit, and in what ways, they can be used effectively.

Departmental Meetings

Junior high departments meet on the first Monday of each month. At the beginning of each year, I send them invitations to meet in the audiovisual department once during the year. Usually, a sizeable number

respond. Let me describe several types of meetings that I have held with junior high departments:

Sharing Meetings. For a meeting of the industrial arts group I invited each teacher to bring in some device that he had produced for getting across an industrial arts skill or understanding. The result was a demonstration of models, handmade lantern slides, copied 2x2 slides, specimens, and electric boards. A comment heard as the group was leaving—"This is the best meeting we've had!"—really convinced me again that sessions in which teachers participate are the ones from which they learn most.

Demonstrations. Members of an art group asked for a demonstration of the uses of an overhead projector. After I showed various kinds of transparencies and discussed procedures for making them, the group thought through the applications of transparencies in the art field.

Meetings for Giving an Overview of Materials Available from the Audiovisual Department. An English group asked for a browsing session in which they could preview and audit materials available from the audiovisual department for use in teaching specific units in English.

Meetings for Determining the Best Materials to Use in a Specific Unit. A meeting with a science group helped teachers try to determine which kinds of materials are most effective for specific purposes. The first part of the meeting was a discussion of the kinds of things that films, filmstrips, objects, transparencies, and other audiovisual materials can best help us do. Afterward, using a list of some of the concepts to be developed in a unit on energy, the teachers shared ideas regarding materials that they had found most effective in getting across specific concepts.

Open House for New Teachers

Early each fall we try to inform our teachers about the resources available from the department and to assure them of the ease with which they can be procured. Working with the building coordinators, I hold open house on two or three afternoons after school, the program usually consisting of: a discussion (by me) of materials and equipment available and the means of procurement; an opportunity for questions; and, a browsing time.

Work With Individual Teachers

Inservice education does not always take place in group situations. Frequently it can be more pertinent when employed individually. My schedule calls for visits to three buildings each week, my time being divided among the various teachers. I circulate from room to room, giving these types of services:

- Talking with teachers about units they are teaching
- Giving them whatever help they may ask for from the department, showing them materials they can produce or that children can produce
- Suggesting effective ways of using materials and equipment
- Photographing examples of effective use of audiovisual materials and asking teachers' permission to share these ideas with others.

Giving teachers recognition for their achievements is, to me, one of the keys to a functioning audiovisual program.

Audiovisual Idea Book

Our building coordinators were instrumental in suggesting and helping with the preparation of what is perhaps one of our most useful inservice devices, a publication entitled *Audiovisual Ideas—Let's Try Them.* This grew out of a recommendation by several coordinators that we make slides of interesting audiovisual materials found in classrooms. These slides were used during various meetings, and teachers began to ask to borrow them for a more leisurely study. Because we did not have enough copies of the slides to service all of our buildings we settled on the idea of an illustrated, loose-leaf manual which could be revised as necessary. It was prepared through the combined efforts of the coordinators who aided me in collecting ideas, the assistant superintendent who gave helpful advice on format, and the art consultant who prepared illustrations. My job was one of organizing and editing.

The first part of the booklet has sections on audiovisual materials for teaching reading, arithmetic, social studies, science, health and safety, and music. The second section is devoted to directions for making flannel boards, bulletin boards, relief maps, dioramas, electric boards, and other audiovisual devices listed in the first part of the book.

We feel that the production of a manual of this type is a worthwhile inservice experience, both from the viewpoint of those who contribute to the book and those who use it.

Workshops

Audiovisual workshops have been the mainstay of our inservice education program. Of many different kinds, they are varied to meet our needs at specific times. By way of background, I should perhaps say that our teachers are required to earn six hours of credit every four years in order to receive their annual pay increment. This credit can be obtained either from colleges or universities or from workshops set up by the school system for which time requirements are the same as for university classes and for which an equivalent amount of "local" credit is given. Here, by way of brief description, are our several types of workshops:

Clear Lake Workshop: Scheduled at our school camp during the last two weeks in August, the Clear Lake Workshop is conducted for teachers who wish to participate on a voluntary basis. (The response has always been gratifying.) One of the groups meeting at the workshop each year is my section on Production and Utilization of Instructional Materials.

At the beginning of this summer's workshop we examined a display of various kinds of materials that could be produced, and conducted an overview of possible topics for discussion and demonstration during our morning sessions. Among those in greatest demand were: lettering, charts and posters, overhead projector transparencies, flannel boards, wet and dry mounting,

Open house gives teachers chance to ask questions, browse, acquaint themselves with AV resources. Here Marie McMahan uses feltboard for introductory remarks.

plastic boards, photography, mimeographing techniques, and magnetic boards. The afternoons were occupied with production. Each teacher was expected to produce a bulletin board layout, a well-lettered chart or poster, and other materials of his own choosing. The amount and quality of work accomplished indicated what teachers will do when they are producing something for which they feel a real need.

On Thursday of the second week the production group conducted a session for everyone attending the workshop. During the first part of the meeting, I demonstrated various new materials and equipment available from the Battle Creek audiovisual department; this was followed by demonstrations by our group members. Stationed around the room with exhibit materials and the equipment needed to demonstrate the production processes involved in these materials, our group showed interested onlookers how to copy slides, make various kinds of transparencies, achieve lettering with different devices, use a microprojector, etc. Having the opportunity to demonstrate some of the procedures they had learned was, we felt, an effective culmination activity for the members of the production group.

Instructional Materials Workshop. From time to time we convene for what we call an Instructional Materials Workshop. This is a workshop in which one or more of our curriculum people and I collaborate. When it grows out of teacher requests, as often happens, blanks are sent out to determine how many teachers are interested and which kind of materials they would like to have demonstrated. When information comes in, we set up 16 sessions based on the demonstrations most frequently requested. Teachers working for one hour of credit can select any eight sessions while those wishing two hours of credit attend all sixteen. We feel that this plan has merit because secondary teachers in specific areas can select sessions they consider pertinent to their interests and ignore the others. As the following schedule shows, demonstration sessions alternate with work sessions.

October	23	Introductory Session
October	30	Audiovisual Materials for Reading and Language Arts
November	6	Work Period
November	13	Flannel, Plastic, and Magnetic Boards
November	20	Work Period
December	4	Bulletin Boards and Electric Boards
December	11	Work Period
January	8	Audiovisual Materials for Mathematics
January	15	Work Period
January	22	Audiovisual Materials for Social Studies
January	29	Work Period
February	5	Projected and Still Pictures
February	12	Work Period
February	19	Audiovisual Materials for Science
February	26	Work Period
March	5	Sharing period

Demonstrations for the workshop are cooperative enterprises in which the curriculum person presents basic principles important to teaching a specific subject and I illustrate the ways in which audiovisual materials can help in carrying out these principles. I believe this kind of cooperation between the curriculum people and instructional materials specialists is very healthy and I am happy to work in a school system in which it is possible.

Production Workshops. In my visits to schools I receive many requests from teachers for specific flannel board materials, plastic maps, transparencies, and other locally-produced materials. Not having a graphics person in my department, I find that one of the best ways to produce these materials is in production workshops. We have conducted three strictly production workshops, two on transparencies and one on other materials. The production is in the hands of the workshop participants, with materials made available from the audiovisual department. Almost without exception, a gratifying number of teachers volunteer to help with this type of workshop.

THESE THEN ARE SOME OF THE KINDS of inservice activities that we have tried. Usually, I am involved with two or three each week after school. We are continually varying these experiences and trying to improve them to fit specific needs of which members of our staff are aware. Out of the experiences that we have had to date, come, I believe, several principles that are important:

- Inservice education should be based on the felt needs of teachers, principals, and other curriculum people.
- It should start where teachers are and take them as far as possible.
- Teachers should be involved as much as possible in the planning of such inservice education.
- They should be given as many opportunites as possible to share the effective techniques and materials that they have discovered.
- Inservice education should take into consideration the time available to teachers and, whenever possible, should tie into already scheduled meetings.
- Inservice education should help teachers feel that the audiovisual program does not belong exclusively to the audiovisual consultant, but that it is their program and that they have a vital part in making it successful.

THE AV/TV COURSE

A team-teaching experiment conducted at the University of Wisconsin

WALTER A. WITTICH

WITH TELEVISION AS THE MEDIA, team teaching the technique, and audiovisual as content, the AV/TV course at the University of Wisconsin brings teacher education to the forefront of modern instructional experimentation.

The Teaching-Team* Audiovisual Television Course (to use its full title) is an outgrowth of several motivating factors. These can be stated as follows:

- Current statistics reveal that within the United States the immediate need for new teachers reaches nearly 140,000 each year. At the present time, American teacher training institutions are certifying approximately 135,000 teachers annually, of whom less than 110,000 reported for work in the fall of 1960.
- The teaching-team approach to the improvement of classroom learning has yielded hopeful outcomes when applied to experiments in elementary and secondary schools. It was thought possible that a similar approach could improve the quality of instruction in audiovisual education.
- Since audiovisual professionals are concerned with the definition and practical application of improved communication techniques, it was deemed appropriate and timely for an audiovisual group to undertake to further perfect instruction in the use of these techniques and aim them at increasing audiences of teachers both in service and in training.

The foregoing statements point to a drastic re-thinking and re-planning of ways to accomplish the training of larger numbers of inservice teachers in the use of audiovisual tools and techniques.

The means by which the AV/TV experimental project sought to accomplish this was through the use of the mass communication tool (television), the teaching-

*Team teaching has several connotations; in this instance it represents a team of professional instructors who prepared, presented, and administered the course.

Dr. Wittich, whose name will be familiar to most readers, is professor of audiovisual education at the University of Wisconsin and coordinator of the project described on these pages. Anyone interested in securing specimen copies of the evaluation devices, the revised manual (second edition), or in previewing half-hour television lessons representative of those mentioned in the article, are invited to address requests to Dr. Wittich at 113 Education Building, The University of Wisconsin at Madison.

team approach, and through quasi-correspondence study techniques. The experiment can conveniently be described in four phases, the first of which follows.

Phase 1

In the spring of 1959 a group of men long experienced in the teaching and administration of audiovisual techniques and materials met at Madison to discuss the feasibility of a team-teaching television course in audiovisual education for elementary teachers. In the group were Lee Campion, then director of audiovisual education, St. Louis County Schools and now associate investigator, Technological Development Project, NEA; Richard Hubbard, assistant director of the Bureau of Audiovisual Instruction, University of Wisconsin; Wesley Meierhenry, assistant dean, Teachers College, and professor of audiovisual education, University of Nebraska; V. B. Rasmusen, associate professor of education and director of the audiovisual center, LaCrosse State College, LaCrosse, Wisconsin; Charles F. Schuller, professor of education and director of the audiovisual center, Michigan State University; Frederick A. White, director of the Bureau of Audiovisual Instruction, University of Wisconsin, and, the writer.

In addition, two consultants served with the committee: Percy H. Tannenbaum, formerly associated with the Institute of Communications Research, University of Illinois and currently director of the Communications Center, University of Wisconsin and Charles A. Wedemeyer, director of Correspondence Study, University of Wisconsin, Extension Division.

As an outgrowth of this spring meeting the teaching team was formulated and experimental work begun. During the spring each of the team members planned and produced a half-hour television lesson on an audiovisual subject of his choice. These kinescope recordings were used as an evaluation device and for the development of program plans.

Phase 2

In the fall of 1959, the teaching team completed the formulation of content plans for a series of 42 half-hour television lessons which would become one portion of the audiovisual television course. At the same time, working under the leadership of Charles Wedemeyer, a television "correspondence-type" manual was developed in which ten written assignment lessons were prepared. These were designed to involve students in self-evaluation and reporting to an audiovisual teacher who would, from his central location, evaluate the written assignments of participating teachers, make judgments and suggestions, and assign a grade.

At the same time, a staff of graduate students worked with the director of the project and with Professor Tannenbaum to develop a series of evaluation scales which would be administered to participating teachers during the time of the series broadcasts. These scales included a (1) teacher practice scale; (2) teaching methods opinionnaire which incorporated the use of the semantic differential technique; (3) an audiovisual performance scale; (4) a teaching practices change report which involved the judgements of a supervisor nominated by each enrolled teacher; and, (5) a television course and content evaluation scale administered after the course had been completed and grades assigned to the participating teachers.

This last scale was one of the most realistic and objective of the series in that it was a final opportunity for the participating teacher to speak frankly about the strength and limitations of the AV/TV course as he experienced it.

Production of the television programs went forward

An imaginative step to improve AV techniques, the AV/TV course goes into its third year with outlets in six states. At left in usual order are Dr. Wittich, Lee Campion, and Robert Reed, all principals in the experiment.

VOUCHING FOR THE EFFICACY of team teaching —at least as far as the instructor himself is concerned—here are statements from six of the seven members who originated the AV/TV experiments at the University of Wisconsin.

SCHULLER: *"Through the teaching team idea varied approaches to instruction can all be focused toward one concentrated effort to do the best possible kind of teaching."*

WHITE: *"Not only is it possible for a group of instructors to pre-plan the lessons in a course, but having done so, each member may concentrate on those particular lessons which he feels most qualified to teach."*

HUBBARD: *"The teaching team approach becomes a modern-day communications innovation. It employs the greatest efficiency of time and effort of the individual teachers who are involved."*

RASMUSEN: *"In team teaching there is a certain inspiration which the members receive from one another. A sort of a competitive spirit develops which is all to the instructor's benefit."*

MEIERHENRY: *"As a member of a teaching team, I have been able to concentrate all of my time and preparation on collection of illustrative materials in anticipation of teaching a specific and limited part of an entire course."*

CAMPION: *"The diversity of ideas and materials which a team of instructors can arrange are much beyond that which could be achieved by a single instructor."*

under the supervision of Robert M. Reed, professor of television production at the University of Wisconsin Television Laboratory. During the fall, members of the teaching team produced lessons mutually agreed upon by the group. The team taught solo, in pairs, and in some cases, in larger groups as they sought through demonstration and discussion to present the content of 42 lessons which were the outcome of more than 60 half-hour lessons scheduled through production. The 42 lessons covered these topics:

The Meaning of Audiovisual Education
Chalkboard, Flat Pictures, Graphics, Duplication, Feltboard, and Study Displays in Teaching
Sound Films
Maps and Globes
Community Study
Models and Specimens
Still Projection
Audio
Radio, Television, and the Cross Media Approach

Inherent in the AV/TV series were two unique teaching procedures. One was that student feedback following the telecasts was provided for through ten written assignments which all "students" submitted. The written assignments were sent to the centrally-located audiovisual specialists for evaluation. These audiovisual teachers wrote numerous comments and criticisms on the assignments and returned them to the participating teachers. The second was that the laboratory experiences in the operation of equipment were built into the course. For example, in the case of the 16mm film projector, a series of postcards were inserted into the study manual. The student tore these out, submitted them to the appropriate manufacturer and in turn received diagrams, instruction booklets, and phantom photographs. In the corresponding TV lesson, the instructor used models, animated sequences, and diagrammatic explanations to show the threading and operation of any one of the more common sound motion picture projects. By submitting an additional postcard from the manual, the student received a roll of practice film. Suggestions in the manual directed the student to sources of 16mm sound projectors.

On the basis of all these experiences, plus reading a series of assigned reference texts, the teacher was expected to master the operation of the sound projector —and in every instance among the 780 enrolled teachers, success was reported. Similar procedures were pursued in the case of the tape recorder, filmstrip projectors, etc.

Through the teaching-team technique, each of the seven instructors was able to concentrate on a fraction of the course and spend untold hours in preparation of materials and demonstrations. Under the direction of the television laboratory director, a quality lesson resulted which was far superior to the teaching procedure of the typical audiovisual instructor. This last evaluation was made primarily by the members of the teaching team as they sought to evaluate their own ten years of teaching experience as compared to their performances as members of the AV/TV teaching team.

Phase 3

In the spring of 1960, the AV/TV project was broadcast over television stations in six areas in the Midwest and in the southeastern United States. During the broadcasts, the evaluation instruments were administered to participating teachers. Their reactions to the efficiency course are stated here. The table shows the percent of the teachers who agreed that positive changes occurred as the result of watching the televised lessons.

AUDIO VISUAL AREAS CONSIDERED	PERCENT AGREEING THAT CHANGES OCCUR
Study Displays	75
Chalkboard	72
Sound Films	67
Flat Pictures	65
Recorded Discs and Tapes	63
Models and Specimens	61
Feltboard	56
Filmstrip	55
Community Study	55
Still Projection	49
Graphics	49
Maps	48
Textbook	37
Duplication	37
Stencils and Outlines	29
Classroom Television	25
Classroom Radio	21

Analysis of dissenting comment revealed two general kinds of reactions:

1. Facilities do not exist. Hence, the teachers cannot report the use of some audiovisual techniques. This applies particularly to television and radio.

2. Teachers reported that since they were already familiar with and currently using the audiovisual techniques inquired about, they could report no increased changes.

The final evaluation report submitted to teachers sought their overall estimate of the audiovisual course. Charts I and II are indicative of the manner in which 130 Midwest teachers and 147 Florida teachers responded.

Produced by Robert Reed, TV director at the University of Wisconsin, the crew was made up of graduate students. Left to right are Judith Ambrose, Mr. Reed, Jay Brill, Elsie Calero De Martinez, Frederick Mundt, and John Rawnsley. These students have since accepted positions in the field.

CHART I: 130 MIDWEST TEACHERS' OPINIONS OF THE AV/TV COURSE

The practical value of the television lessons was	Very high or high 95	Mediocre 30	Low or very low 4	No answer 1
The Study Guide was	Very useful or useful 100	Mediocre 11	Poor or very poor 1	No answer 18
The value of these television lessons as aids to learning was	Very good or good 106	Mediocre 17	Poor or very poor 1	No answer 6
The work load involved in course completion was	* Too much 100	Reasonable 11	Too little 1	No answer 18
The AV/TV Course, when ranked with the typical professional education course, was	Much more or more favorable 79	Equal 26	Less or much less favorable 18	No answer 7

* Note: This figure does not represent drop-outs, although about 18 percent of enrollment did drop out during the first six weeks the course was televised.

CHART II: 147 FLORIDA TEACHERS' OPINIONS OF THE AV/TV COURSE

The practical value of the television lessons was	Very high or high 127	Mediocre 19	Low or very low 2	No answer 2
The Study Guide was	Very useful or useful 139	Mediocre 5	Poor or very poor 2	No answer 1
The value of these television lessons as aids to learning was	Very good or good 132	Mediocre 12	Poor or very poor 2	No answer 1
The work load involved in course completion was	Too much 100	Reasonable 37	Too little 0	No answer 10
The AV/TV Course, when ranked with the typical professional education course, was	Much more or more favorable 102	Equal 30	Less or much less favorable 15	No answer 0

Generally stated, the effects of participating in the AV/TV course were:

1. Constructive changes in audiovisual techniques were incorporated immediately in day-to-day classroom teaching.
2. The AV/TV course effected attitude change favorable to the use of audiovisual media among the participating teachers.
3. The course ranked more favorably than the typical professional education course.
4. The course can be improved and on the basis of careful analysis of both television lessons and course manual, the means of such changes are known.
5. With revision, the AV/TV course can be a superior inservice teacher training course.

Phase 4

In the fall of 1960, plans went forward for the revision and demonstration year of the audiovisual television course.

Because of the outcomes of the research phase, and because of the firm belief that efficient inservice training in audiovisual can be accomplished via a combination of written assignments and television teaching lessons, the teaching team continued to study ways and means of further improving 15 of the existing television lessons, the course manual, and general administrative procedures. Actually, 18 of the television lessons were revised, 15 of them in their entirety. The teachers' manual was restudied, largely rewritten and reprinted.

One criticism from audiovisual people concerned the fact that central control of an audiovisual course was being exercised by one teaching team. *The revised course will permit at least six of the 42 lessons to originate live from the local group offering the course, thus building into the course the opportunity for local audiovisual leaders to adapt portions of the AV/TV course to the unique requirements and needs of the local teachers participating.*

During the spring semester of 1961, phase 4 (AV/TV demonstrations using the revised AV/TV course) will continue in at least six television broadcasts across the country.

Demonstrations now scheduled for the spring of 1961 are:

1. *Nebraska.* Here 16 of the 42 lessons will be broadcast as a special teaching improvement program.
2. *Boston University.* Under the leadership of the Education Department, 32 of the 42 television lessons will be broadcast as an accredited course in improvement of classroom teaching.
3. *West Texas.* The entire 42 lessons will be broadcast over the facilities of one television broadcast station and six community antenna, under the accreditation of Sul Ross State College. This plan will serve a widely scattered teacher audience at work over a very large geographical area.
4. *Tempe, Arizona.* The use of the entire 42 lesson course as an accredited course.
5. *Northern Illinois State University.* The use of the entire 42 lesson course as an accredited course.
6. *Knoxville, Tennessee and University of Tennessee.* The use of the entire 42 lesson course as an accredited course.

Still under negotiation at this time are other demonstrations which involve the course as a teachers association project in the improvement of classroom instruction, and, over a state network, as a professional education project in teacher improvement.

At this writing it is apparent that a program of teacher education in the audiovisual area can be dramatically accelerated through a combination approach of written assignment, television, and team teaching. It is further to be demonstrated how a centrally organized teaching-team course can fulfill the unique needs described by local audiovisual leaders in such a manner as to bring the strengths of team AV teaching to a community and at the same time preserve the local leadership, autonomy, and originality. As these demonstrations go forward it is anticipated that the strengths of traditional audiovisual teaching can be reconciled with the unique strengths of team broadcasts. The hoped-for outcome may contribute to successfully meeting the great need now confronting the audiovisual professional group, namely, to speed up the pace and efficiency of training both for teachers in service and for teachers in pre-service education.

New at
San Diego State

ROBERT R. NARDELLI

DEMONSTRATION LESSONS VIA KINESCOPE

EDUCATORS at San Diego State College are experimenting with kinescope recordings as a possible means of enriching the pre- and in-service education of teachers. Although the program in elementary teacher education at San Diego State includes a comprehensive schedule of observation and participation in the Campus Laboratory School and in neighboring school districts, the faculty of the Division of Education are interested in recording certain key demonstration lessons which they believe vital to the improvement of the profession.

With at least four different student populations enrolled during each school year (fall and spring semesters, summer sessions, and an extensive evening program), it is impossible to provide live demonstrations of lessons taught at certain times of the school year. For example, some groups of students may see lessons in the transition from manuscript to cursive writing while others do not; others may see beginning reading, a social studies culmination, or a lesson on the rationale used for the division of fractions. The evening students may miss all of these simply because there are no children available at night, while the day students will see only those lessons normally taught when they are in a program of observation.

What Is A Kinescope Recording?

A kinescope recording is a film produced when an especially modified motion picture camera takes a photographic image from a television picture tube, simultaneously adding sound. In the system employed at San Diego State College, three television cameras of the studio vidicon type are used to pick up the action to be recorded on film. A director selects which of the three available pictures will be fed to the kinescope recorder. When processed, the film may be shown over a television system or through any conventional 16mm sound projector. The cost of production is approximately $100 per half-hour recording.

The project at San Diego State was made possible through the cooperation of the speech arts department which has a well-equipped and versatile studio and capable staff. The speech department made available to the faculty of the Campus Laboratory School its kinescope equipment, sound system, and cameras. Included in the kinescope equipment is a high quality Tele-view recording monitor which displays a television picture to a modified Auricon CM-75 sound motion picture camera. The reason for the modification of the camera is to accommodate the disparity between the TV system which produces 30 pictures per second and standard motion picture techniques which prescribe a rate of 24 pictures per second.

In the sound system are Lavalier microphones for teachers and other adult participants. In addition there are two microphone booms equipped with directional microphones. The studio also includes an Altec 250 audio console which controls sound from the microphones to the kinescope recorder. The camera equipment consists of three broadcast standard vidicon studio camera chains.

The production staff was made up of a director, two engineers, and undergraduate students in the broadcasting curriculum who manned the cameras and sound equipment. The lessons were produced by the writer as principal of the Campus Laboratory School, and taught by the supervisors of the various grades involved. (The Campus Laboratory School includes a child study laboratory, a kindergarten, and grades one through six.)

Implementation of the project was preceded by the formulation of these objectives: (1) To examine the cost of producing kinescope recordings of demonstration lessons for purposes of teacher education; (2) To determine those "key" lessons which students should see and discuss at pre-service or inservice stages of preparation; and (3) To be of service to the field of teacher education by adding to the fund of information on modern techniques of instruction.

The first consideration which governed the selection of lessons was utility to the program of teacher education. Of course, it was imperative that the recording of the lesson be compatible with the activities of the pupils in the Campus School and with their ability to profit from it.

A basic decision was to attempt to involve professors from the Division of Education as consultants for each recording on the theory that if professors were to use the lessons they should exemplify techniques and develop concepts which professors deem important. Accordingly, professors who are considered specialists in particular areas of instruction were asked to analyze lesson plans critically, and to make suggestions for modification in the light of good practice and utility to the teacher education program.

The four kinescope recordings produced during the spring semester were: "A Developmental Reading Lesson in Second Grade"; Displacement of Fresh and Salt Water" (a science lesson which developed out of a second grade harbor unit); "Language and the Social Studies" (a group story written by the first grade after a trip to the supermarket); and "The Student and Supervisor in Action" (a recording in which the student

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teacher plans a sixth grade arithmetic lesson with the supervisor, teaches the lesson, and joins with the supervisor in a follow-up evaluation conference.)

Each lesson was planned for approximately 30 minutes to enable the professor to explain the reason for the lesson, show it to his students, and conduct a discussion period—all within a conventional 50-minute period.

All professors engaged in the elementary school program were asked to recommend specific lessons not already available through the audiovisual library or rental libraries.

In each case an attempt was made to produce lessons which included considerable give and take between the teacher and her pupils, providing opportunity for the college student to see the manner in which the teacher led discussions, explained new procedures, and handled the spontaneous responses of the children.

Children Oriented to Cameras

Because the recording equipment is relatively difficult to move, all kinescopes were recorded in the studio of the speech arts department rather than in the classrooms of the Campus Laboratory School. This involved taking the children some three blocks across campus. They were briefed on the job to be done and were asked to ignore the cameras, sound booms, and new surroundings. It also was necessary to transport classroom furniture and to provide a temporary room environment. The furniture was no problem; however, the room environment was not up to acceptable standards.

The day before the recording the children made a trip to the studio—to become accustomed to the environment, wave at the cameras, and be ready to "go to school" when the recording began. They were highly enthusiastic and adjusted readily. Parents were notified and subsequently invited to view the kinescopes.

As in the case of the closed-circuit television project underway at San Diego during the past two years, the number of children was limited to ten. The reasons were technical rather than professional. It is too difficult to cover great numbers of children adequately with the cameras and to pick up the small voices with the available audio system.

This limitation of numbers is negligible insofar as the purposes of teacher education are concerned because the teacher can demonstrate numerous techniques with small groups as well as with large numbers of children. However, the experienced teacher accustomed to 35 or 40 pupils who views small group instruction with a jaundiced eye will need to make a transfer from the demonstration situation to her own classroom.

Seven professors and 120 students were asked to make evaluations of the kinescopes. No attempt was made to compare the learning of students through kinescope recordings with that acquired through live demonstrations. However, professors and students were asked specifically to criticize the kinescopes as well as to state in what ways they compared favorably with live demonstrations.

An analysis of the returns indicates that the viewers see a considerable potential contribution, although with some reservations. Positive reactions may be summarized as:

1. Additional kinescope recordings of selected "key" lessons should be produced in order to benefit students who otherwise would begin or continue teaching deprived of model lessons in certain topics.

2. Elementary methods courses can be enriched and made more effective through the medium of kinescopes.

3. Particular sequences in kinescope recordings may be repeated for discussion purposes in order to clarify a point or concept.

4. Certain "by-product" effects will prove of value to classes in child growth and development, and educational psychology, because an instructor can discuss illustrative features with his students before, during, and after the showing.

Most of the unfavorable reactions were ones which can be remedied through experience, to wit:

1. The room environment in the studio is unlike that of an elementary school and should be improved.

2. Increased attention to the audio system is indicated. In some cases, pupil responses were almost inaudible.

3. Improvement in the coordination of camera work with teacher or pupil activity at appropriate times is needed.

4. The advisability of editing kinescopes to remove slow or "dull" parts of the lesson should be investigated.

Conclusions and Recommendations

- Carefully selected "key" lessons should be produced to supplement lecture courses in the preparation of elementary school teachers.
- Certain lessons will be of great value to inservice teachers as well as those in pre-service education.
- Supervisory personnel can profit from kinescope recordings as points of departure for discussions and as instructional media for workshops.
- Continued involvement of education professors as consultants is basic to the success and utilization of kinescope recordings.
- Future production of kinescopes must be determined through a careful study of topics and only after consultation with personnel who will be utilizing them.
- The advisability of shorter lessons should be investigated. It is possible that many "key" points may be demonstrated in 10 or 15 minutes.
- Ways of involving members of the instructional faculty must be devised.

Established Practice at San Diego State

ROMAINE H. RINGIS

AUDIOVISUAL INTERNSHIPS

IN THE March 1960 issue of AUDIOVISUAL INSTRUCTION Edwin M. Logan asks: "Why not an audiovisual internship?" In reply I would answer, "Why not, indeed? San Diego State College has had an internship program for eight years." I would further add that this program fulfills more than the basic requirements outlined by Dr. Logan.

Since its creation in 1952 by William H. Allen, more than 25 masters degree candidates have completed the internship requirements. Of these, many have gone on to fill positions in the audiovisual field, some at the college level as professors of education, others as directors of audiovisual centers, and still others as building coordinators. In addition, five graduates have become building principals.

As in the medicine internship, the procedures used by San Diego State are designed to allow an AV student to put into practical application the theoretical foundation acquired in his graduate course work. Likewise, as in medicine, the student interns at an established institution—an audiovisual center in the area. The student is assigned on either a full or part-time basis according to the flexibility of his schedule. A minimum of 144 hours is required under the direct guidance of an AV supervisor and James S. Kinder, director of audiovisual services at San Diego State College. Usually students intern during summer sessions. However, some find it advantageous to take the course during the regular school year. In the latter instance, some interns work in the afternoons after their regular teaching day.

The student is accepted into the organization as one of the staff. He attends staff meetings and is called upon to perform staff members' functions. He is in direct contact with an audiovisual supervisor and follows a carefully worked out schedule of activities.

The close contact with Jack Blake, assistant AV director of the San Diego City Schools, was in my case the most rewarding experience. The personal, on-the-spot discussions of activities within the center did more to sharpen my insight than could hours of theoretical explanation in the classroom. Budget, equipment standards, distribution procedures, and production methods took on new significance. Meeting the sales representatives, discussing individual teacher's problems, and attending committee meetings became meaningful experiences.

An important part of the internship experience comes from actually performing the jobs necessary for the operation of an instructional materials center. Part of the intern's time is devoted to film inspection, cataloging, previewing, distribution, photography, art production, and materials control. In each case, some time is required for the permanent personnel to explain their jobs to the student, but this is kept to a minimum. The primary objective is always to get the student working at the job as soon as possible. The intern carries out the assignment of the staff members under the usual daily conditions, and is treated much as if he were a replacement for the employee.

Upon occasion the intern is assigned special duties as opportunities arise. Among these might be the responsibility for the audio and projection equipment necessary for a local conference, or, meeting with faculty groups for an inservice training program.

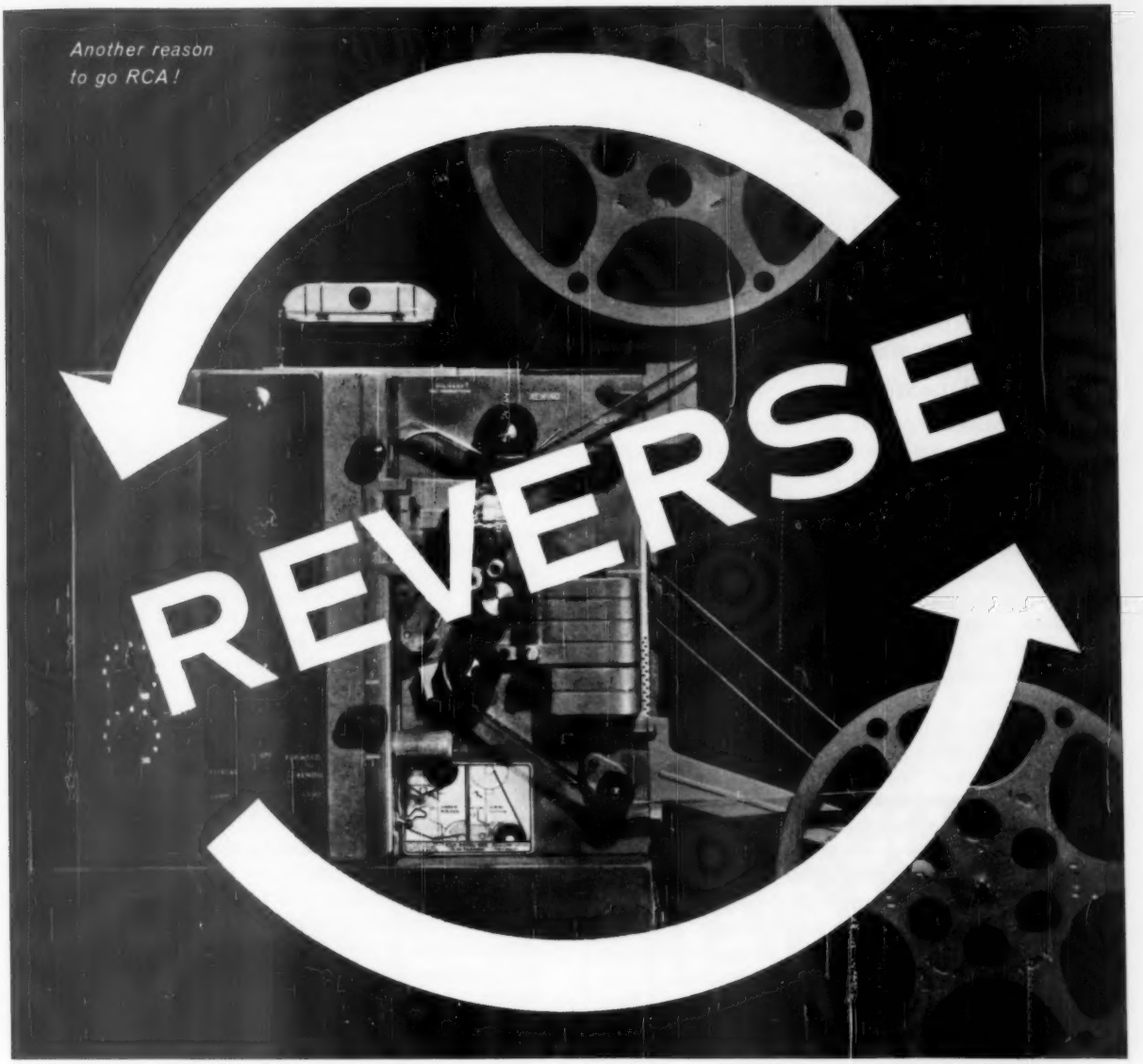
Perhaps the most beneficial part of the internship, to both the intern and the AV center, is the assignment of a special project. This usually allows the student to work out a solution for a problem being encountered by the center. It may be studying the film-handling methods to increase effectiveness of space and staff, an attempt to reorganize the accounting procedures for non-film materials, or studying the delivery routes and schedules. The major portion of the work on the project is accomplished during the intern's working day, but in many cases additional assignments are undertaken outside the allotted hours. The student benefits by closely associating himself with an actual problem of the center, and the center gains by being exposed to a fresh viewpoint. Not all interns' solutions have been adopted completely. However, each report is given careful consideration and many worthwhile ideas are utilized.

In general the student benefits from the internship program in these ways:

- He receives an over-all picture of the everyday operation of an instructional materials center.
- He comes in contact with the various tasks necessary to the center's operation.
- He gets personal and individual attention from an AV supervisor and a college instructor.
- He gains experience in meeting and solving real rather than hypothetical problems of AV administration.
- He gains confidence by knowing he has had some experience in administration of AV materials.

The daily participation in the routines of an audiovisual center can be a valuable experience for a graduate student interested in an audiovisual career. As one of the most recent graduates of the audiovisual masters program at San Diego State College I can agree with Dr. Logan and state again that this internship program meets all of his standards and perhaps goes beyond in providing a worthwhile culmination to a graduate student's training.

The author who "interned" at San Diego State College during 1958-59 is currently a teacher of social studies and the building audiovisual representative at the Horace Mann Junior High School in San Diego.



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AUDIOVISUAL IN FOCUS AT BEMIDJI

DAVI sponsors session for Deans and Presidents in Teacher Education

W. R. FULTON

IF REACTIONS of presidents and deans attending the AACTE School for Executives at Bemidji, Minnesota, represent the feeling of leaders in all teacher education institutions, one can expect an almost universal acceptance of the challenge to adjust teacher education programs to include more effective use of audiovisual materials. This, at least, was the impression one got from attendance at the Bemidji School on August 25 when DAVI presented the theme topic for the day, "New Techniques of Teaching for the Sixties."

The Tenth Biennial School for Executives sponsored by AACTE (the American Association of Colleges for Teacher Education) was attended by more than 300 presidents, deans, department heads, and their families. The power packed program built around the theme "Teacher Education: Direction for the Sixties" included such topics as: The Professional Content of Teacher Education, Staffing Teacher Education Institutions, International Relations for Teacher Education, and New Techniques of Teaching. A full day was devoted to each topic with two major presentations and discussions in small groups.

At the request of the sponsor, DAVI arranged and presented the August 25 theme topic "New Techniques of Teaching for the Sixties." DAVI president Jim Finn made the major presentation and C. R. Carpenter, who has a rich background in audiovisual research, addressed the assembly on a related topic: "New Conditions for Learning in the Sixties." Each rang the "audiovisual bell" in their respective presentations.

Jim Finn's illustrated address together with a colloquy in which Ray Carpenter and the writer participated aroused much interest and discussion. Points which seemed of particular moment can be summarized as followed:

- Instructional technology will be the most significant development in education during the 1960's.

Old Okoboji hand and DAVI authority on questions pertaining to teacher education, Bill Fulton needs no introduction.

- Instructional technology has developed along two avenues—mass instruction and individual instruction. Now they are being joined through such devices as "feedback" television. Under this system, the instructor asks a sequence of questions, the student makes an overt response to each question and immediately receives a "feedback" to his response.
- The development and introduction of technology of instruction on a wide scale will radically change the professional status of the teacher. This change will mean a reexamination of everything connected with the teaching profession—the role of the teacher, the nature of teacher education . . .

Of the questions raised by the colloquy, these received the most attention by the discussion groups: (1) Is there a built-in bias to instructional technology in teacher education institutions? (2) What about the arrangements of physical facilities to make full use of new teaching devices? (3) Is the present organizational pattern of education flexible enough for optimum use of audiovisual materials and devices? (4) Are present teachers and administrators adequately trained to make the best use of audiovisual materials now available? and (5) Will teachers have to be constantly updated as audiovisual devices and materials are improved and new devices added?

Dr. Carpenter received praise for his scholarly presentation of such points as:

- Extraordinary advances will be made in the electronics of information and communications which can be put at the service of education. These will include expansions and improvements in network educational radio and television and even the use of communication satellites of the Echo series.
- There will be a near revolution in the design of educational buildings, classrooms, and their instructional learning facilities.
- The massive efforts already begun to improve courses and learning programs in the sciences will continue to expand to other subject areas and be extended to higher levels of education during the 1960's.
- These new techniques will be necessary because, increasingly, more people will want to achieve greater skills

and knowledge—which will require longer periods employing both formal and informal methods.

- Educational programs can be developed in which students will accept the major responsibility for their own learning through independent study. Variations in student's schedules should be increased to correspond with individual differences because learning programs do not require lock step progression of studies through the educational systems.

Some of the concerns of college presidents and deans of education are indicated by the following questions and comments as overheard among the discussion groups and in the corridors:

"The best session so far . . . more interest . . . more concern . . . more discussion in the groups and over coffee."

"I know we need to revise our teacher education program but in view of what Dr. Finn said, what changes should we make?"

"Where can we get expert help? Are any institutions training AV people to direct such programs?"

"Do we have any evidence to justify the use of the technological devices mentioned by Dr. Finn?"

"What can AACTE do to bring about more and better use of AV materials?"

"Are the implications for changes in instructional procedures as great as Dr. Finn implied? If so, what changes are implied for TE?"

"Unless TE takes the lead in preparing for an orderly and effective instructional technology, someone outside of education will do it for us—probably without our advice."

"We ought to get on top of this problem so we in education can tell producers and manufacturers what material we want produced and what devices we want."

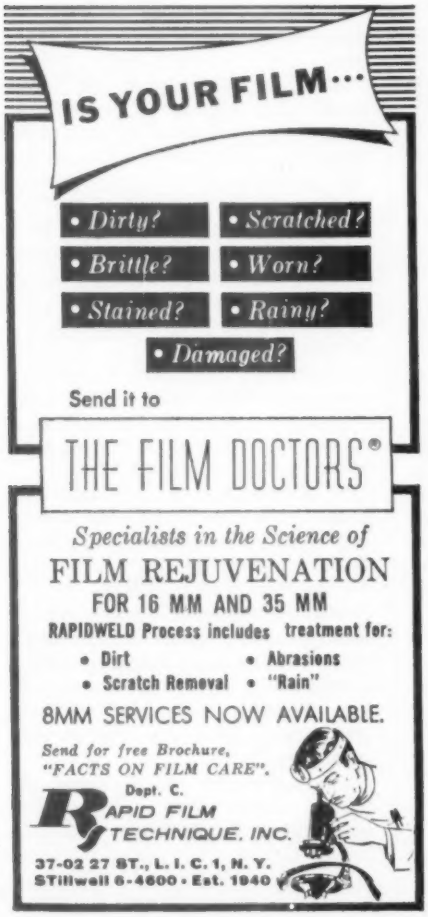
"What Finn said made us feel insecure and uncertain about our current TE Programs."

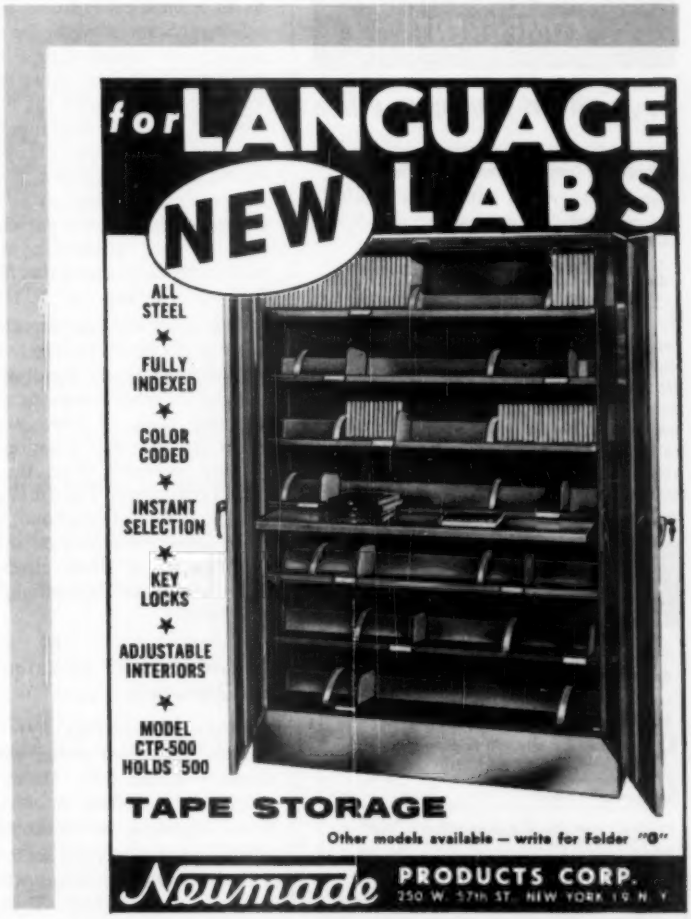
"Someone should express our appreciation to DAVI for sending us their 'first team'."

"We ought to change today's topic to read 'getting ready in the sixties to employ instructional technology in the seventies'."

"I am glad to learn that most AV courses today have some 'meat' in them and are not oriented entirely toward 'mechanics.' If we could find a competent AV person we would consider reestablishing the AV course in our institution."

"The misuse of television and teaching machines could set education back 50 years. We must take steps to see that they are used properly and that teacher-pupil interest is provided for when needed."





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Ohio Aids Laboratory Features Filmstrips On Teacher Education; Other Materials

A SET OF FIVE filmstrips, *Teachers at Work,* has been produced by Laura Zirbes and Norman Woelfel and is being distributed by the Teaching Aids Laboratory at Ohio State University. Dr. Woelfel is Laboratory director. The set is an integrated series presenting all aspects of a modern teacher's work with children in the elementary grades. Designed for teacher education classes, it is also suitable for meetings of administrators, supervisors, teachers, and interested parents.

The titles are: *Interacting With Children* (51 frames); *Using the 3 R's to Widen Learning* (49 frames); *Broadening the Curriculum and Enriching School Living* (59 frames); *Developing and Extending Themselves* (51 frames); and *Contributing to Educational Advance* (51 frames).

Members of the DAVI national staff who viewed the filmstrips report excellent pictures with beautiful color. They judged the series as a whole helpful to beginning teachers—but more as an orientation exercise, not as methodology. Some thought the text frames (which are designed to stimulate discussion) so elementary as to be almost vague; others thought the filmstrips attempted to cover too much territory, confusing the viewer. These reactions bear out the producers' warning that the series was made to be used by a discussion leader, not for casual viewing. A note accompanying the set states: do not expect the filmstrips to do your teaching job.

The series with supplementary handbook is priced at $20; individual titles with supplementary handbook, $4.50.

A list of other filmstrips and printed material (many of which are also pertinent to teacher education) follows. All are available from the Teaching Aids Laboratory, The Ohio State University, 1988 College Road, Columbus, Ohio. Send orders and payments to the Laboratory, but make checks payable to the Bureau of Educational Research and Service.

Filmstrips on AV Techniques and Materials

Making Teaching Effective (39 frames, black and white, with supplementary notes, $3). Shows the curriculum atmosphere in which audiovisual materials are most effective.

How to Keep Your Bulletin Board Alive (33 frames, color, with supplementary notes, $4). Designed for teachers who want help in preparing an attractive bulletin board.

A Parade of Bulletin Boards (46 frames, color, with supplementary notes, $4). Pictures of 36 actual classroom bulletin boards prepared by teachers of different subject matter areas. Good and bad features of these are analyzed.

How to Make and Use the Felt Board (54 frames, color, with supplementary notes, $4). Designed for teachers in service who wish to make and use this valuable teaching aid.

Improving the Use of the Chalkboard (44 frames, color, with supplementary notes, $4). Helpful techniques and suggestions for improving classroom use of the chalkboard.

Handmade Lantern Slides (51 frames, color, with supplementary notes, $4). Analysis of the techniques for making large lantern slides.

The Diorama as a Teaching Aid (59 frames, color, with supplementary notes, $4). Outlines pictorially how any teacher, with her students, can make educationally meaningful dioramas.

The Opaque Projector (46 frames, color, with supplementary notes, $4). A pictorial analysis of the use of this teaching aid together with suggestions on operation and the preparation of materials to be projected.

Materials for the Teaching of Arithmetic (45 frames, color, with supplementary notes, $4). Presents a variety of three-dimensional materials useful in teaching arithmetic and available in local stores.

Functional Arithmetic (59 frames, black and white, with supplementary notes, $3). Designed for teachers in service who need help in making arithmetic instruction more realistic.

A Simple Exhibit Technique (40 frames, color, $4). An easy step-by-step picture description of how to build a universally useful exhibit rig for the classroom or school.

Making Geographic Models (55 frames, color, with supplementary notes, $4). An analysis by color photographs of the simplest process of making acceptably accurate three-dimensional maps from any map showing elevations.

Study Pictures and Learning (63 frames, color, with supplementary notes, $4). A detailed and precise analysis of how pictorial materials can be used in every variety of teaching situation.

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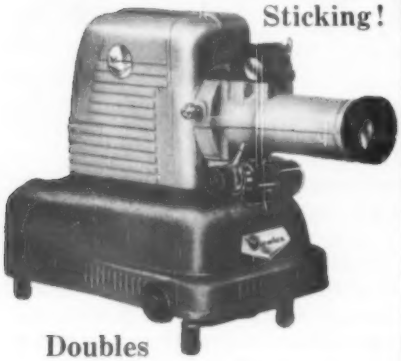

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Our School Life (45 frames, color, with supplementary notes, $4). A series of color photographs with explanatory captions illustrating a typical day in a modern Japanese school.

Geology (52 frames, color, with supplementary notes, $4). A series of color photographs illustrating introductory facts about geologic forces affecting the earth.

Korea Today (57 frames, color, with supplementary notes, $4). Color photographs depicting Korean terrain, farming, home construction, river and city life.

Rural Life in South India (60 frames, color, with supplementary notes, $4). A colorful review of the features of village life and the characteristic activities of the people of South India.

Pamphlets

Sources of Teaching Materials (1960 edition), Pamphlet No. 1, 50 cents

How to Reach Our Teaching Goals With Teaching Aids, Pamphlet No. 2, 35 cents

How to Make and Use the Felt Board, Pamphlet No. 3, 50 cents

The Diorama as a Teaching Aid, Pamphlet No. 4, 50 cents

Handmade Lantern Slides, Pamphlet No. 5, 50 cents

How to Keep Your Bulletin Board Alive, Pamphlet No. 6, 50 cents

Amateur Filmstrip Production, Pamphlet No. 7, $1

Challenges to Educational Advance, Pamphlet No. 8, $1

The Opaque Projector, Pamphlet No. 9, 50 cents

Study Pictures and Learning, Pamphlet No. 10, 50 cents

Teachers at Work, Pamphlet No. 11, 50 cents

The Teacher Makes His Own Chart, Pamphlet No. 12, 50 cents

Audio-Visual Materials in Teacher Education, 25 cents

Improving the Use of the Chalkboard, 25 cents

The Use and Care of Flat Picture Materials, 50 cents

Where Do We Go From Here? (The Problem of Mass Communication in America) 50 cents

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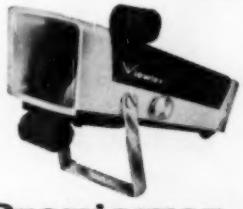

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IT'S ALL TOP BILLING IN MIAMI

IN THE PAST, DAVI Conventions have followed a pattern of emphasizing general sessions, with sectional meetings, occupational interest groups, swap shops, etc. playing a lesser role. In recent years, however, the general sessions have no longer been able to contain the concerns of the organization; thus topics and talent began spilling over into the concurrent sessions until this year it's hard to tell one from the other. Telescoped on these pages are only a good sample—seven out of 13 concurrent sessions (the rest to be reported next month). Perhaps the vigor of this portion of the program is partly due to the cooperative planning with outside organizations. The pattern goes something like this: you invite a leader from some other professional group to give the major presentation; then you set up a panel (or in some cases a single representative) from the audiovisual field to react—in other words to draw out the AV implications and otherwise challenge the visitor to sharpen, modify, or stand back of his statements. This looks like a fool-proof formula for intellectual stimulation and leaves the convention delegate with only one problem: how to choose between the sessions concurrently scheduled. Here for your convenience is a chance to start weighing choices early.

Learning Theory and the New Media

(Wednesday, April 26, 1:15 to 2:15 p.m.)

Snygg

Conrad

SHARING the podium for this session will be two psychologists, Donald Snygg, professor at Oswego State College in New York, and Douglas Porter, who is associated with the Laboratory for Research in Instruction at Harvard. Snygg, who is also at home in the field of anthropology, is currently occupied with developing a "perceptual field theory of learning"; Porter, the author of a teaching machine design, is more concerned with instructional materials in the "basic skills area." How the differing viewpoints of these two men will be brought into play will depend on the session chairman, Herbert S. Conrad, coordinator of research for the Division of Higher Education, U. S. Office of Education, and president of the educational division of the American Psychological Association. Abe VanderMeer will pull out the audiovisual implications.

Mitchell

Reed

Lewis

CCTV: First Steps in Planning

(Thursday, April 27, 1:15 to 2:15 p.m.)

IF YOU ARE STARTING a closed-circuit television program or still only contemplating one, you won't want to miss this session. Phil Lewis, director of the bureau of instructional materials, Chicago public schools, will furnish basic technical information for setting up a closed-circuit studio. Robert Reed, production director for WHA-TV, University of Wisconsin, will cover the basics for producing and directing a TV program. (Mr. Reed directed production of the AV/TV course reported on pages 54-57.) The third panel member is Wanda Mitchell who needs little introduction and perhaps knows more about CCTV utilization than anyone in the profession. Miss Mitchell's philosophy can be summed up briefly as: TV only where TV can do the best job. Latest reports from Evanston (where Miss Mitchell is TV coordinator as well as television teacher for some classes) is that TV has been eliminated in certain instances; for example, the overhead has proved more useful for large group instruction. The audience will react to this panel.

Critical Listening in the Classroom

(Wednesday, April 26, 10 to 11 a.m.)

A TOPIC inspiring widespread interest but possessing few authoritative voices, this is certain to be a drawing card. The educator making the major presentation has been described as "the man who has done more work in this field than anyone else in the country." He is Thomas R. Lewis, assistant dean of the graduate school at Florida State University. Chairman Wesley Wiksell, professor of speech at Louisiana State University and currently president of the National Society for the Study of Communication, is noted for a lecture entitled "Have You Tried Listening?" which employs role-playing and visual aids and is said to be "dynamic, educational, stimulating, and humorous." Reacting to this formidable duo is Bob Hall, DAVI.

Wiksell

Lewis

Instructional Systems

(Wednesday, April 26, 10 to 11 a.m.)

Gill Friedman Hall

ALMOST SYNONYMOUS with instructional systems is the Physical Science Study Committee, and from MIT comes Francis L. Friedman to share its experiences with the Miami delegates. Dr. Friedman has been involved in the PSSC physics course since its inception; he has been instrumental in the direction of all of its phases, and is primarily responsible for the course textbook. He will cover the planning of integrated content, teaching techniques, and the battery of teaching aids that make up an instructional system. As a physicist, Dr. Friedman has conducted research in both theoretical and nuclear physics, has contributed to many governmental projects, and spent one year as a guest of the Institute of Theoretical Physics in Copenhagen. Reacting to his presentation will be a panel of three: Margaret Gill, executive secretary, ASCD (curriculum); Joe Hall, superintendent of the Dade County public schools (administration); and for DAVI, Bob Gerletti.

The Textbook as It Relates to the Newer Media of Education

(Wednesday, April 26, 1:15 to 2:15 p.m.)

Slaughter Moorer

ROBERT E. SLAUGHTER, vice president, McGraw-Hill Book Company, will chair a panel of three publishing executives: W. McLean Johnson, president of the Webster Publishing Company, who will speak to the theme as it relates to the elementary and secondary school; Alden H. Clark, vice president, Holt, Rinehart & Winston, who will treat textbooks at the college level; and Theodore Waller, vice president of Grolier Society, who will address himself to encyclopedias and reference materials. Reacting to the panel from the field of education will be Sam Moorer, director of instructional systems, Florida state department of education. A joint operation of publishers and DAVI, the session is planned to apprise delegates of the latest trends in printed materials in terms of their scope, marketing, and production.

Lanagan Schueler Pomeroy Bower

A Report to the Profession

(Thursday, April 27, 1:15 to 2:15 p.m.)

THIS IS AN INFORMATION PROGRAM chaired by Wes Meierhenry which will report undertakings of interest to the audiovisual profession. Robert T. Bower of the Bureau of Social Science Research, Inc. will report on a project underway by his organization to survey audiovisual equipment, its use and distribution in the United States. Edward C. Pomeroy, executive secretary of the American Association of Colleges for Teacher Education, will describe AACTE efforts on several fronts to improve teacher education and acquaint deans and presidents with the use of the new media. (At this writing AACTE has just completed a Title VII-financed conference at Ann Arbor on this theme. See also report by W. R. Fulton elsewhere in this issue.) Herbert Schueler of Hunter College will describe their teacher education project using kinescopes in both training and evaluation. Jim Finn will discuss NEA's technology project and Charles Schuller, the activities of the New Media Council. As "reactor," Yvonne H. Lanagan will attempt to elicit from the panel the net value of these projects to the classroom teacher. A teacher of English at Webster Groves, Missouri, and active in the NEA Department of Classroom Teachers, Mrs. Lanagan will draw on an impressive background in journalism and public relations when she confronts this power-packed symposium.

Implementation of the Instructional Materials Concept

(Wednesday, April 26, 9 to 10 a.m.)

Williams Whitenack Newman

PLANNED IN COOPERATION with the American Association of School Librarians, this session will be chaired by its president, Elizabeth O. Williams, with Carolyn I. Whitenack, associate professor of library and AV at Purdue, as key speaker. Miss Whitenack, who is also vice president of the American Library Association, will be followed by a panel of "old pro's": L. C. Larson, Paul Reed, Louis Shores, now editor in chief of Collier's Encyclopedia, and Audrey Newman, consultant in instructional materials for the Florida state department of education. Reactor to (and summarizer of) this AV-library interplay will be Jim Brown, on leave from San Jose.

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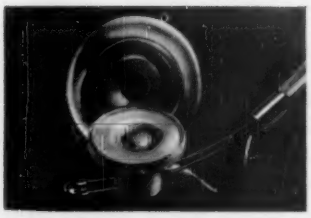

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Literature in Brief

Teacher Education in the United States, by Lindley J. Stiles, A. S. Barr, Harl R. Douglass, and Hubert H. Mills. Ronald Press Company, New York, N. Y. 1960. 512 p., $6.75.

THE BASIC PURPOSE of this work as stated by the authors is "to provide a background of information and facts with which the study and redesign of teacher education programs may be advanced." Its hope is to further the achievement of excellence in teacher education and its audience is both the student and "all who are concerned in any way with the selection and preparation of teachers at either the collegiate or in-service stages." Current problems in the educational field are related to the past and as such achieve a perspective helpful to the educator.

The status of teacher education in America is explored and analyzed in a survey which includes the role of teacher education in American democracy, current issues, and teacher education in a new age of intelligence. The organization and administration of teacher education is reported under these headings: (1) influence of national, regional and state agencies; (2) institutions for teacher education, (3) institutional patterns; and (4) the recruitment, selection, and admission of prospective teachers.

A section emphasizing the preservice program of teacher education discusses such topics as (1) general education of teachers; (2) subject specialization; (3) professional preparation; (4) professional laboratory experiences; (5) student teaching; and, (6) certification, placement, and follow-up.

The treatment of inservice education revolves around three practices—the internship, postgraduate teacher education, and programs for continuing professional development.

Finally, problems and prospects in teacher education are summarized in terms of evaluation, accreditation, preparation of teacher educators, and the all-institution approach.

The whole is a comprehensive account which should be of interest to all audiovisualists.

Teachers Make: Slides, Transparencies, Opaques, Tape Recordings, by Caryl C. Dunavan and Emma Fantone. Available from the Audiovisual Office, State Department of Education, Trenton, N. J. 39 p., 50 cents.

AIMED at the teacher who recognizes the value of audiovisual materials "designed to do a specific teaching job under a specific set of circumstances,"

this pamphlet shows how "do it yourself" methods can result in efficient and interesting teaching tools. A section on two-by-two slides discusses (1) kinds, (2) equipment necessary to make slides by photographic means, (3) materials for photographic slides, (4) home processing, (5) work space, (6) taking pictures indoors, (7) copying, (8) original materials, (9) handmade slides, and (10) slides from polaroid transparencies. Each sub-section contains specific and simply stated directions.

Standard lantern slides are considered in terms of kinds, equipment, materials, techniques, and general instructions. Types of handmade slides discussed are: silhouette, cellophane, gelatine coated, photographic, and combinations. The transparency is presented in terms of methods for handmade and photographic sheets, types, and special suggestions. The use of the opaque projector is treated briefly with directions for the preparation of opaque materials.

The tape recorder is defined, and ways of utilizing it in classrooms explored. Teaching with the tape recorder in varying situations — large classes and small groups—is examined. The techniques for recording, copying a record, mixing, dubbing, and recording from radio and television are outlined. Finally, a bibliography of books, periodicals and AV devices concludes the presentation.

Edward T. Schofield

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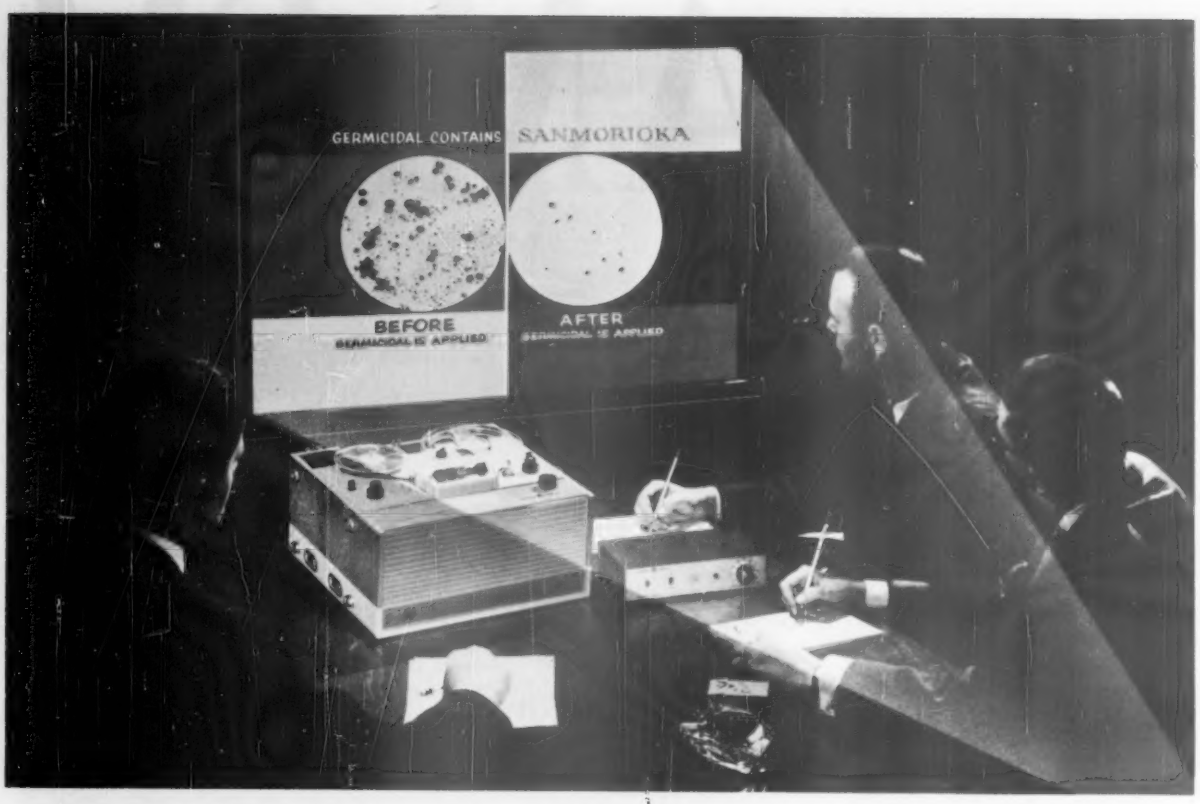

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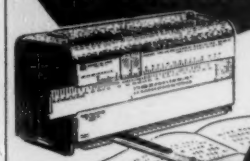

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TOP TWO IN DAVI ELECTION

Clyde Miller

William Allen

CLYDE K. MILLER was accorded highest honors by DAVI members January 10 when he was voted president-elect of the organization. *AVCR* Editor William H. Allen won the vice presidency and Kenneth D. Norberg, Mendel Sherman, and Donald P. Ely were named to the Board of Directors as delegates-at-large.

Dr. Miller will not approach the presidency as a green hand when he takes office in 1962. His work as membership chairman for two consecutive years and his terms as acting vice president and vice president have familiarized him with the organizational machinery. Judging from his two-year performance as membership chairman, Dr. Hyer and the national staff look forward to vigorous presidential support in 1962.

Bill Allen, who is known to members primarily as editor and research specialist, will take his place on DAVI councils at the Convention in Miami. The new delegates-at-large are all associated with college-level programs—Dr. Norberg, Sacramento State College; Don Ely, Syracuse University, and Mendel Sherman, Indiana University.

As is customary, three DAVI members in the Washington D. C. area served as official ballot counters on January 10. The three, who arrived in time for lunch with the national staff, were Bruce L. Miles, supervisor of teaching materials, Fairfax County, Virginia; Louise S. Walker, supervisor of audiovisual education, Montgomery County, Maryland; and Mrs. DeForest Anthony, Audiovisual Committee, Council of Churches, Washington, D. C. Florence Fan was in charge of arrangements.

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Lee Cochran Wed

Lee, and the new Mrs. Cochran

AVI readers will be interested to learn of the marriage December 24 of Lida Myers to Lee W. Cochran. The ceremony took place at 11 a.m. at the Community Church of San Carlos, California. Before her marriage Mrs. Cochran was assistant professor of education and coordinator of instructional materials at Central Washington College, Ellensburg. She has also been a county materials director, a teacher, and a radio script writer and producer. She is a photographer of note, having been listed for several years in the American Annual of Photography. (Mrs. Cochran was on the Photographic staff for the DAVI Convention in Seattle.)

Executive assistant for the Iowa University Extension Division, Mr. Cochran is well known as the moving spirit of the Okoboji Leadership Conferences and the DAVI Field Consultancy Service. He is also delegate-at-large to the DAVI Board of Directors.

Mr. and Mrs. Cochran are at home to friends at 35 Olive Court, Iowa City.

New Ad Man

John J. Faber, AVI's new advertising manager, has that rare background which combines advertising and professional education. A graduate of New York University's school of education and a certified teacher in New York State, he has been national advertising sales manager for *Industrial Arts and Vocational Education Magazine* for the past seven years. During that time he also represented the *American School Board Journal*. AVI feels fortunate in securing Mr. Faber's services which began January 3.

Mr. Faber

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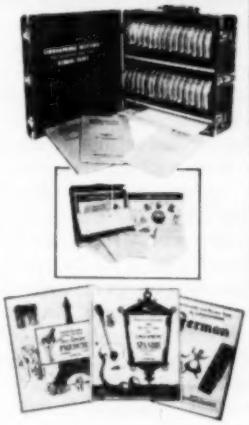

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FEEDBACK

Is There a Controversy?

IT was with some astonishment that we read Mr. Schutte's forthright message printed below; not however, without appreciation of the careful thought reflected in his articulate statements. It was our understanding that the rapid development in our field had brought with it a brand new set of problems to supersede and render academic the AV-library controversy. Perhaps we are mistaken; perhaps our ear is not so close to the ground as it should be. We will welcome the thoughts of others on this question. —THE EDITORS

Dear Editor: The hour of decision is long overdue. Several of your articles as well as your editorial in the December AUDIOVISUAL INSTRUCTION indicate that it is later than we think. Yes, our good old AUDIOVISUAL INSTRUCTION is losing rapidly its "audiovisual." It reads more like the *Journal of the American Library Association*.

Horses and airplanes are both good means of transportation, but does this mean they should both be kept in the same stall? Shall they both be given the same care, maintenance, and use? Is a good driver for one necessarily a good driver for the other, or must all operators of one be well qualified to run both? Libraries with their books, AV with its many specialized instructional devices are as different as horses and airplanes. Neither gains by joint operation.

Is it suggested that we do the impossible? Are we to try to be all things to all men? Audiovisual and library are specialized activities that have little in common except that they are both concerned with instructional materials. Maintenance, circulation, and use of the materials differ greatly and can best be handled as separate operations. It is certain that both AV and library personnel are now sufficiently busy without complicating matters still further.

Are we in AV being sold down the river? Are not these impractical "togetherness" theories doing greater harm to AV than all the good that has been accomplished audiovisually under NDEA? Are we not the Department of *Audiovisual* Instruction? Practical efficiency will be served if renewed emphasis is placed on "audiovisual" as such. We do not need to be apologetic about what we have to offer or about our accomplishments.

Evidence of the blight that is already upon us is apparent in the newly revised evaluation procedures of some of the various school accrediting agencies. We need specific criteria aimed at careful evaluation of AV as such, rather than confused combinations of ambiguous items. The adoption and use of specific separate AV evaluative criteria will do much to improve AV professionally while at the same time guaranteeing improved practical services to our schools.

At a number of audiovisual meetings recently, growing concern has been voiced for maintaining audiovisual services to our schools unhindered by complicating and unrelated affiliations with the library. While it is recognized that the editor of AVI is entitled to her opinion, it is perhaps unfortunate that one with a more authentic AV point of view does not hold this influential post.

Why should AV remain in most instances separate from the library? Because (1) the library is primarily a student centered operation while AV is largely teacher-service oriented; (2) entirely different procurement procedures are needed; (3) entirely different maintenance procedures are needed; (4) entirely different use procedures and schedules are involved; (5) teachers want most of all dependable, prompt, and efficient AV service which can best be provided by a separate AV department; (6) teachers want instructional devices that are in good repair, a service that can best be rendered by an AV department; and (7) local production techniques and facilities can most effectively be provided by an independent AV department.

Perhaps we should adopt as our AV prayer, "Lead us not into confusion, and deliver us from the library."

I challenge you to (1) print this letter, and (2) to conduct an unbiased survey of the DAVI membership on the question of AV versus libraryitis.

—D. F. SCHUTTE
ST. LOUIS PARK (MINNEAPOLIS)

A Pro-Merger Viewpoint

Dear Editor: The October issue of AUDIOVISUAL INSTRUCTION prompts me to write a long delayed letter of appreciation for the excellent work that is being done in the magazine. It is interesting, alive, and abreast of educational thinking. DAVI is moving forward into an educational world where there will be increasing need for materials specialists if our schools are to have the proper guidance.

I think that it is extremely commendable that the AV-TV seminar [held last May and reported in the October issue] went much further than the topic and got into a discussion of the structure of the materials system for public schools. Some practical guidance in this very important matter is needed and I am sure that if brought to the attention of superintendents this issue will have an impact on the current situation.

The only suggestion which has occurred to me is that in your ideal structure you have not listed textbooks under the supervisor of instructional resources. It seems to me that since textbooks are a fundamental part—if not the fundamental part—of the American materials program we must begin with this important area in erecting a materials system. Furthermore, unless the supervisor of instructional resources—or director of instructional materials or whatever title is used—has control of the textbook program we are not going to have the necessary correlation of the entire materials offering, particularly at the elementary level.

Also, there is a considerable fiscal advantage of having one person in charge of the entire materials program. The director or supervisor will be able to shift emphasis as needed from one aspect of the program to another since he will have an overall view of the materials picture. I realize that the supervisor of instructional materials is a rather new figure in American education but our experience here and that at San Diego and other cities where the program is being tried has been so favorable that the organization seems to have considerable merit. In reaching forward, it seems to me that DAVI should attempt to push a unified materials approach instead of the fragmented operation that is common practice today. —A. K. TRENHOLME
PORTLAND PUBLIC SCHOOLS

Two Views on Seminar

Dear Editor: Although I believe in educational television, I have always contended, to the chagrin of Harold Wigren at Houston [who rejoins the NEA staff this month], that the commercial stations could do a better job of staging a performance and might well use the educational services of classroom teachers. The enclosed Guides are current examples of how I convinced both sponsors and NBC after eight years of persistent effort. These Guides have reached school personnel in 39 states—on every level of instruction. I went into the schools and homes of the teachers and students. My Guides were used for homework and also for class discussion.

Therefore when I read the articles in the current issue [October 1960, the report of the AV-TV seminar] and recognized some of the men, I found myself somewhat at loss to understand what they had actually achieved. Of what value is this October issue? Let's face it! *A quoi bon?* —JACK W. ENTIN
FOREST HILLS HIGH SCHOOL, N. Y.

Readers who would like to see copies of Dr. Entin's TELEVIEWER'S DISCUSSION GUIDE *to the American Heritage TV Series or other samples of his Duplicated Supplement may contact Dr. Entin at: 147-04 77th Road, Flushing 67, N. Y.* —THE EDITORS

Dear Editor: Congratulations! The October issue is outstanding—not only in the material it contains, but also in the progressive thinking that was evidenced by bringing together the people for this intellectual discussion session on the role of the audiovisual specialist in ETV. —NEAL KEEHN
GENERAL FILM LABORATORIES

Leadership Cited

Dear Editor: A congratulatory note is due your editorial in the December issue. I could just say "thank you" and let it go at that but you see I'm helping one of my building coordinators prepare to be my successor. Your editorial is most timely in this connection —a splendid summary of present conditions with helpful suggestions for the future course. The sentence which reads, "Immediate attention should be given to thinking through the type of professional education required for a coordinator of instructional materials and to start adequate training programs for this new position" should have all the emphasis possible. It is most pertinent. I am sure that I am only one of hundreds who will profit by your leadership as exemplified by this editorial. Thank you.

—M. I. SMITH
DULUTH PUBLIC SCHOOLS

Likes Both Journals

Dear Editor: I have just finished the article by Murray Phillips on the rationale for the instructional materials center and I find it extremely helpful. This magazine and your quarterly are so excellent that I am asking the library to subscribe to them in order that copies will be available to our faculty.

—DAVID M. JACKSON
PRINCIPAL, UNIVERSITY HIGH SCHOOL
UNIVERSITY OF ILLINOIS

Equipment Note

IN a note accompanying the letter below, Equipment Editor Bill King writes: "I have quite a bit of information in response to my section on rear-screen projection. Of all the articles I have written, this seems to be one that has aroused the most interest."

Dear Mr. King: In our school of 900 students, an elementary school of Grades 1 through 6, we have two rear screen projection mobile units. They are Audi-Viewers made by the Sarasota Audio-Visual Corporation. The exterior wall of the upper-grade wing of our school is entirely of glass which would represent quite an expense to darken. The Audi-Viewer has eliminated the necessity for darkening and the problems it involves—poor ventilation, difficulty of note taking, etc.

Since the Audi-Viewer is all in one mobile unit, it is being used more and more by our teachers. We like having our films in the classroom because this obviously is the best instructional situation. The first year we had this mobile unit our film usage was five times as great as the year before. The faculty and I definitely feel that rear projection is a coming thing.

—RODNEY H. DAVIS
PRINCIPAL, ALTA VISTA SCHOOL
SARASOTA, FLORIDA

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EDITORIAL | *Anna L. Hyer*

A Time of Opportunity

ACCORDING TO DAVI Archivist, Bill Kruse, the first AV course was given in 1915 during summer school at the University of Minnesota. The North Carolina State Teachers College at Raleigh was, in 1921, the first institution to offer such a course during an academic year, according to Bob deKieffer.

Be this as it may, no former time seems to have been as opportune as the present for making major improvements in the preparation of teachers for use of audiovisual materials and techniques.

NDEA has played a significant role in calling attention to the new media. Educators who until recently have shown little active interest in the audiovisual field now are engaged in research, attending conferences devoted to various aspects of the new media, or showing other signs of awareness and involvement. Good examples are the Bemidji meeting reported on page 62 and the recent invitational Ann Arbor conference on Teacher Education and New Media, both conducted by the American Association of Colleges for Teacher Education.

One of the working papers for the latter conference took a critical look at the professional education of teachers, and the criticisms advanced seem to apply as well to much of our so-called audiovisual education. Fred T. Wilhelms writes:

> It also seems to be a fact that much of the content we teach in our specialized courses either disappears before it is to be applied or is somehow not in the form that would make integration into practice an easy or natural matter . . .
>
> The best solutions seem to be a radical reconstruction of our use and timing of experience, achieved through an enlarged relationship with the public schools; a cultivation of ingenious ways of bringing crisp reality into the Education classroom; and a creative resynthesizing of our total content for maximum power.

Many of the audiovisual courses and experiences planned as a part of the pre-service education of teachers put theory first and application far behind, and this even though the philosophic foundation of our field rests on a belief in the role of reality in retention of learning, motivation to learn, and in the development of meaning. Perhaps we too can teach more in less time and obtain more of the changes in behavior we desire if we improve our teaching methods.

If I were to teach the basic AV course again I would like to try a problem-solving approach, using not imaginary problems but real ongoing ones observed and identified by students. I can visualize a course utilizing observation in considerable amount, enabling the student to study at firsthand communications in operation in the classroom. Later, observation would be used to develop skill in identifying, analyzing, and solving various types of communication problems. The student, in cooperation with the classroom teacher, would select or prepare appropriate materials and observe their use in the classroom. At the appropriate stage of his experience he would assist in the classroom, for example in operating equipment, and much later would teach lessons using AV materials and techniques. Evaluation would be a continuous experience gradually increasing in sophistication.

At least one institution has an AV workshop open to education majors where, at no charge and with consultant assistance available, students can prepare visuals for their own use in class reports and projects, or in student teaching. At Penn State University, Torkelson is directing an experiment involving four patterns for improving teacher skill in AV communication. In one, audiovisual communication is taught in combination with student teaching, thus offering relatively immediate classroom application of principles presented.

The internship program described on page 60 by Ringis illustrates again a method of offering experiences in solving real problems.

It appears that with a little ingenuity many ways can be found to bring reality itself, as well as simulated reality, into the AV classroom. This should contribute to the development of learning readiness in providing meaningful practice and reinforcement, and in greatly enhancing the chance of AV principles being integrated permanently into the behavior patterns of future teachers.

Not only is the time ripe for a close look at *how* we are providing audiovisual experience to teachers, but also at *what* we are teaching. Joseph Weber *(Ed Screen,* June 1922) gives a content description of a course in Visual Instruction offered at the University of Kansas. A comparison of the topics and projects cited with those of typical courses today indicate that little significant change has occurred other than the addition of a few new items of hardware. (A notable exception is the program described by Dr. Robinson on pages 46-49.)

Today we are being asked by our colleagues in other areas of teacher education, "What should I be teaching about the new media that I am not now teaching?" We will be in a better position to answer and to be heeded when we have put our own house in order. How many of our current programs include experiences that will prepare teachers to direct small group or individual instruction, prepare them in the principles of programming, in techniques for large-group instruction, to function as the classroom partner of a TV teacher, or for the many other roles, not on the horizon but here today.

The old adage "opportunity knocks but once" has never struck me as particularly true. It seems more probable that opportunity is continually knocking, perhaps louder at some times than at others. The trouble is that we fail to hear the knock, can't get the door open, or aren't ready to entertain "opportunity" when she enters.

Our opportunity today lies in the aroused interest of teacher education leaders in the new media; let us not fail to embrace it.

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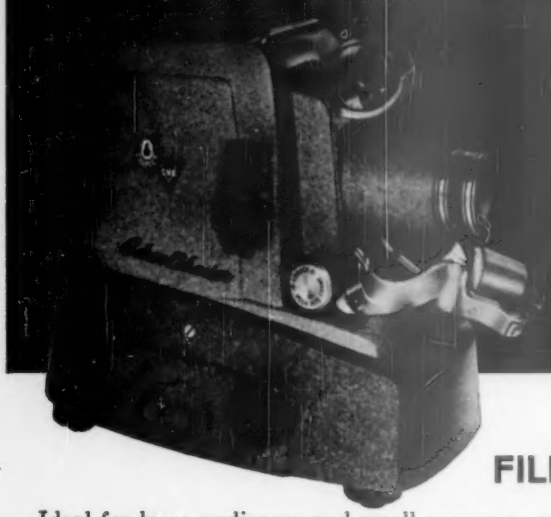

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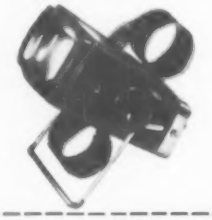

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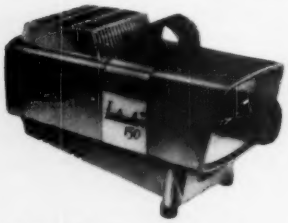

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